FINAL
~~DRAFT~~

ENVIRONMENTAL ASSESSMENT

SSG GUS KEFURT
U.S. ARMY RESERVE CENTER (OH069)
399 MILLER STREET
YOUNGSTOWN, OHIO 44507-1591

Prepared For:

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EXECUTIVE SUMMARY

ES-1. INTRODUCTION

The Department of the Army has declared the SSG Gus Kefurt U.S. Army Reserve (USAR) Center (OH069), located at 399 Miller Street in Youngstown, Ohio 44507, hereafter referred to as either the "Site" or "USAR Center", as excess to the needs of the USAR. The Site has been vacant since 1994. The City of Youngstown has expressed an interest in acquiring the Site for educational purposes. The USAR has agreed to transfer the facility to the City of Youngstown for educational purposes pursuant to Public Law (PL) 104-106, Section 2861, which was modified by PL 105-261, Section 2831.

The Kefurt USAR Center occupies approximately 4.8 acres, is located in an older residential and commercial section of south-central Youngstown, and is zoned General Business. The U.S. Government purchased the property in 1950 and constructed the USAR Center in 1950 and 1951 to serve as a 400-person reserve and mobilization center.

The Site contains two permanent structures, a 25,000-square foot, two-story administration building and a 9,800-square foot, single-story organizational maintenance shop (OMS), both of which are constructed of cinderblock and brick. The administration building contains a large assembly hall, classrooms, offices, armory storage areas, a former small-arms firing range, kitchen facilities, and utility rooms. The multi-bay OMS has garage doors at either end and contains caged/fenced areas for office and storage space. An automotive vehicle parking area and a military equipment parking (MEP) area are also located at the Site. A concrete vehicle maintenance ramp is located within the MEP area. The Site is mostly impervious, covered by building structures, asphalt parking areas, or concrete sidewalks. A portion, but not all, of the original six-foot fencing remains on the Site around the MEP area.

ES-2. PROPOSED ACTION

The proposed Federal action is to transfer this Site to the City of Youngstown in its entirety to be used for educational purposes. If this action involved the transfer of the Site to another Federal agency, the requirements of environmental consideration under the National Environmental Policy Act (NEPA) of 1969 could be met with the preparation of a Categorical Exclusion (CX). However, because the action involves the transfer of a Federal property to a non-Federal entity, NEPA environmental consideration must be met. The preparation of this Environmental Assessment (EA), and subsequent Finding of No Significant Impact (FNSI) satisfies the NEPA requirements.

ES-3. ALTERNATIVES

The alternatives considered provide the basis for a general assessment of potential effects.

Alternative 1: Proposed Action. Transfer of the property to the City of Youngstown. Under this alternative the City would assume responsibility for the future use of the property for educational purposes. Current proposals by the City regarding the disposition of the Site include conveying the property to the Cardinal Mooney High School, a nearby, private school that is considering use of the facility for an athletic complex. Such use would need to comply with pertinent local land use laws and regulations.

Alternative 2: No-Action. NEPA regulations refer to the No-Action alternative as the continuation of existing conditions of the affected environment without implementation of, or in the absence of, the proposed action. Inclusion of the No-Action alternative is prescribed by Council on Environmental Quality (CEQ) regulations as the benchmark against which Federal actions are evaluated. Under this alternative, the U.S. Army would retain ownership of the Site, which would remain closed and unavailable for re-use.

ES-4. CONSEQUENCES

Based upon the findings of this EA, the implementation of the proposed action would not have a significant adverse individual or cumulative impact on the quality of the environment, either human or natural, in the area of potential effect for this action. It is further determined that implementation of the proposed action would be beneficial by providing at no cost to the City of Youngstown a facility that will be used for educational purposes. Use of the facility for educational purposes would be consistent with surrounding area use.

Implementation of Alternative 2 (No-Action/Caretaker) would also have no significant adverse impacts on the environment. However, since comfort heating and cooling is not provided to the vacant buildings, the condition of lead-based paint and asbestos-containing material inside the administration building would continue to decline under this alternative due to temperature and humidity fluctuations. In addition, the Site has suffered vandalism since site closure, which has impacted the aesthetics of the property. This type of activity could continue under the No-Action alternative. Implementation of this alternative would also not relieve the USAR of excess property, causing continued upkeep and maintenance costs.

ES-5. CONCLUSIONS

Based on the analysis of potential impacts, it has been determined that the proposed action does not constitute a major Federal action affecting the quality of human health or the environment, nor is the proposed action expected to be controversial.

Because there would be no significant adverse impact resulting from the implementation of the proposed action, a Finding of No Significant Impact (FNSI) has been prepared to accompany this EA, which concludes that the next higher level of environmental impact investigation under NEPA for this action, an Environmental Impact Statement (EIS), is not required and will not be prepared.

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1.0 PURPOSE, NEED, AND SCOPE

1.1 PURPOSE AND NEED

The Department of the Army has declared the SSG Gus Kefurt U.S. Army Reserve (USAR) Center (OH069), located at 399 Miller Street in Youngstown, Ohio 44507, hereafter referred to as either the "Site" or "USAR Center", as excess to the needs of the USAR. The Site has been vacant since 1994. The City of Youngstown has expressed an interest in acquiring the Site for educational purposes. The USAR has agreed to transfer the facility to the City of Youngstown for educational purposes pursuant to Public Law (PL) 104-106, Section 2861, which was modified by PL 105-261, Section 2831.

1.2 SCOPE

This Environmental Assessment (EA) analyzes the environmental and socioeconomic impacts associated with the transfer of ownership of the Kefurt USAR Center to the City of Youngstown.

The National Environmental Policy Act (NEPA), the Council of Environmental Quality (CEQ) regulations implementing NEPA (Title 40, Code of Federal Regulations [CFR], Parts 1500-1508), Department of Defense (DoD) Directive 6050.1 (32 CFR Part 214), the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), as amended by the Community Environmental Response Facilitation Act of 1992 (CERFA), and Army Regulation (AR) 200-2 require that DoD officials address environmental consequences during planning and execution of all activities.

The scope of this EA is the analysis of the effects associated with the conveyance and re-use of the Kefurt facility. The region of influence (ROI) is the City of Youngstown, Ohio.

1.3 ACTIONS ANALYZED AND METHODS

This EA identifies and evaluates the effects associated with the transfer of the USAR Center against the baseline conditions of the Site. Section 2.0 (Description of the Proposed Action) discusses the transfer process. Section 3.0 (Alternatives Considered) describes in detail all alternatives as required by AR 200-2.

Analysis of the proposed action against the baseline conditions described in Section 4.0 (Affected Environment) was preformed. Section 5.0 (Environmental and Socioeconomic

Consequences of the Proposed Action and Alternatives) presents the relevant beneficial and adverse impacts of the proposed actions and any planned mitigation measures.

1.4 PUBLIC INVOLVEMENT

The public and concerned organizations will be notified of the conclusions of this EA by the publication of a FNSI in the local newspaper, and by making the EA available for review 30 days prior to initiating any action.

2.0 DESCRIPTION OF THE PROPOSED ACTION

The USAR Center occupies approximately 4.8 acres, is located in an older residential and commercial section of south-central Youngstown, and is zoned General Business. The U.S. Government purchased the property in 1950 and constructed the USAR Center in 1950 and 1951 to serve as a 400-person reserve and mobilization center. A site location map is presented in Figure 1 of Appendix A.

The Site contains two permanent structures, a 25,000-square foot, two-story administration building and a 9,800-square foot, single-story organizational maintenance shop (OMS), both of which are constructed of cinderblock and brick. Figure 2 in Appendix A provides a site plan for the property. The administration building contains a large assembly hall, classrooms, offices, armory storage areas, a former small-arms firing range, kitchen facilities and utility rooms. The multi-bay OMS has garage doors at either end and contains caged/fenced areas for office and storage space. An automotive vehicle parking area and a military equipment parking (MEP) area are also located at the Site. A concrete vehicle maintenance ramp is located with the MEP area. The Site is mostly impervious, covered by building structures, asphalt parking areas, or concrete sidewalks. A portion, but not all, of the original six-foot fencing remains on the Site around the military vehicle parking lot. The facility has been vacant since 1994.

The City of Youngstown has expressed an interest in acquiring the Site for educational purposes. Current proposals regarding the disposition of the Site include conveying the property to the Cardinal Mooney High School, a nearby, private school that is considering use of the facility for an athletic complex. The USAR has agreed to transfer the facility to the City of Youngstown for educational purposes pursuant to PL 104-106, Section 2861, which was modified by PL 105-261, Section 2831. The proposed Federal action is to transfer this Site to the City of Youngstown in its entirety.

3.0 ALTERNATIVES CONSIDERED

This section of the EA identifies the alternatives considered and provides a basis for a general assessment of potential effects.

3.1 ALTERNATIVE 1: PROPOSED ACTION (PROPERTY TRANSFER)

Under this alternative, the property would be transferred to the City of Youngstown and the City would assume responsibility for the future use of the property for educational purposes. Current proposals by the City regarding the disposition of the Site include conveying the property to the Cardinal Mooney High School, a nearby, private school that is considering use of the facility for an athletic complex. Such use would need to comply with pertinent local land use laws and regulations.

3.2 ALTERNATIVE 2: NO-ACTION/CARETAKER

NEPA regulations refer to the No-Action alternative as the continuation of existing conditions of the affected environment without implementation of, or in the absence of, the proposed action. Inclusion of the No-Action alternative is prescribed by Council of Environmental Quality (CEQ) regulations as the benchmark against which Federal actions are evaluated. Under this alternative, the U.S. Army would retain ownership and maintenance of the Site. The facility would remain closed and unavailable for re-use.

4.0 AFFECTED ENVIRONMENT

4.1 LAND USE

The Site is located in an older residential and commercial section of Youngstown and is zoned General Business. The USAR Center was constructed in 1950 and 1951 to serve as a 400-person reserve and mobilization center. The Site is mostly impervious, covered by two permanent building structures, asphalt parking areas, or concrete sidewalks. The Site is currently vacant and has been since 1994. However, while in use by the USAR, units that occupied the Center included the 416th Engineering Command, the 645th Supply Company, Company B 11th Special Forces, 1654th Civil Affairs Group, 308th Medical Battalion, 362nd Medical Detachment, 2077th USAR School, and Battery B 3/92nd Field Artillery. The 645th Supply Company and Company B 11th Special Forces appear to be the last units to have utilized the Site. The USAR Center provided office, storage, classroom and learning space, and light maintenance facilities. The administration building and OMS appear to be in sound structural condition. However, both buildings have been subjected to vandalism and are in need of housekeeping and/or renovation.

Historical quadrangle maps indicate that the USAR Center is located in an area of Youngstown that has been primarily residential since the Center's construction, but that retail commercial properties and light industrial sites are also present in the area, especially along Indianola Avenue to the south and South Avenue to the east. Historical Sanborn Fire Insurance Maps investigated back to 1928 indicate that the USAR property was absent of any structures prior to the 1950 except for a wood-framed structure at the southern property line. The structure was due south of the facility's main building and its use could not be determined. This structure was most likely removed from the Site during construction of the USAR Center, as a 1951 topographic quadrangle map of the Site does not show the structure.

The USAR Center is currently bordered to the south, north, and east by residential neighborhoods along Miller Street, East Indianola Avenue, and East Laclede Avenue. The areas further to the east and south contain commercial and light-industrial properties along avenues one block east and south of the Site.

The Site is currently bordered to the west by a local union meeting hall, which lies on a lot adjacent to Rush Boulevard, at 2551 Rush Boulevard. Sanborn maps indicate that an automobile dealership with a filling station was built in 1949 on the lot adjoining the southwest corner of the USAR Center property, at the corner of Rush Boulevard and East Indianola Avenue. The 1983 and 1989 Sanborn maps indicate that the dealership building was expanded and that the filling station was removed. The Cardinal Mooney High School recently completed athletic fields

adjacent to the Site to the northwest, on which a vacant U.S Naval and Marine Research Center was formerly located. The Research Center contained a training center and vehicle maintenance garage, but facility structures were removed in the spring of 1999 and the property was subsequently transferred over to the Cardinal Mooney High School, located west of Rush Boulevard, and converted to athletic fields.

4.2 SOCIOECONOMICS

The radius of influence of the USAR Center is the City of Youngstown, which is located in Mahoning County and is part of the Youngstown-Warren Metropolitan Area. According to 1990 U.S. Census Data, the estimated population of the City of Youngstown was 95,732. The 1998 population estimates for the County and Metropolitan Area were 252,292 and 593,054, respectively.

Youngstown's breakdown of population, by race, has been estimated as follows: 96% non-Hispanic; 4% Hispanic; 59% white; 38% African American; and 3% Asian, Native American, and other races. The breakdown of population by gender in Youngstown is 46% male and 54% female. The breakdown of the City population, by age, has been estimated as follows: 8% five and under; 19% between 5 and 17; 10% between 18 and 24; 27% between 25 and 44; 13% between 45 and 59; and 23% 60 or older.

In 1990, the total number of households in Youngstown was 37,037 and the breakdown of households, by type, was as follows: 30% were single-person; 42% were married-couple; 16% percent were single-parent; and 12% were other family types. The mean persons-per-household was 3.13.

More specific to the population immediately surrounding the Site (within the same zip code: 44507), the 1997 demographic breakout, as reported by Claritas Inc., is comprised of: 42% single-parents and single service workers; 20% mixed, low-income families; 17% older renters and young families; and 11% empty nesters. According to the Claritas Inc., demographic report, the socioeconomic ranking of the groups listed above are poor to lower middle class and predominantly blue collar workers. According to the demographic report, the area comprising Zip Code 44507 has a median income of $18,172, an average 2.46 people-per-household, and a median age of 32. The median income of $18,172 is less than the 1997 National and Youngstown-Warren Metropolitan Area income averages, which were $23,089 and $27,203, respectively.

Employment by industry in the Youngstown-Warren Metropolitan Area, as of December 2000, was as follows: 28% services; 26% trade (retail and wholesale); 21% manufacturing; 13% government; and 4% each for transportation & public utilities, construction, and finance,

insurance, & real estate. The unemployment rate in December 2000 was 5.1 percent. The major employers in the community include Delphi Packard Electric Systems, General Motors, Forum Health, HM Health Services, WCI Steel, Inc., and local, State and Federal entities (e.g., schools, universities, postal service, local government).

4.3 SITE HYDROLOGY AND GEOLOGY

4.3.1 Surface Water Characteristics

The elevation of the Site is approximately 1070 feet with surface runoff in the area draining generally to the east and northeast. The Site itself is relatively flat with a slight slope towards the northeast. Storm water from the Site and surrounding areas is captured by Youngstown's combined sewer system, which collects both industrial and domestic wastewaters and storm water runoff. The Site is not located near any surface water bodies. The closest surface water body is an unnamed intermittent tributary of the Mahoning River located approximately 300 yards west of the Site. This tributary flows northeast before discharging into the river. The Mahoning River cuts through Youngstown, flowing east, approximately 1.25 miles north of the USAR Center. The Mahoning River flows into Beaver River in western Pennsylvania, which is a tributary to the Ohio River, just west of Pittsburgh.

According to the Federal Emergency Management Agency (FEMA) digital flood map for the surrounding area, the Site is not within the 100-year floodplain. According to the National Wetlands Inventory Map of the Site, no wetland areas are located within the property boundaries.

4.3.2 Hydrogeology Characteristics

Mahoning County, Ohio is located on glaciated till underlain by sedimentary rocks of the Pennsylvanian, Allegheny, and Pottsville formations in the Allegheny Plateau. The area is characterized by alternating layers of shale, sandstone, limestone, and coal, 700 to 1,000 feet thick. Soils beneath the Site are composed of the Rittman and Chili Urban Land series, both of which consist of light-colored, very deep, and moderately well drained soils. It was developed on till plains and formed in the clay loam glacial till of the Wisconsin age.

Groundwater is not the primary water source for homes, businesses, and industries in Mahoning County. The use of groundwater in the Youngstown area is generally limited to industrial use by facilities having high water usage requirements. The primary source of water for the Site and surrounding area is surface water from Meander Reservoir, which is provided by the City of Youngstown Department of Water. According to water supply well database information obtained from the Ohio Department of Natural Resources (ODNR), Division of Water, there are

no records of any public supply wells, or any other type of groundwater well, being installed at the Site or on adjacent properties. According to database information, the closest well is a domestic-use groundwater well approximately 0.2 mile southwest of the Site.

4.4 PUBLIC SERVICES

4.4.1 Utilities

Water Service – The City of Youngstown Water Department provides potable water service to the Site. The Site is currently not contracted for water service. The source of potable water for the City is surface water from local Meander Reservoir.

Sanitary Sewer System - Mahoning County Sanitation Engineering provides sanitary sewer service for the Site. The Site is currently not contracted for sanitary service.

Gas & Electric – Ohio Edison provides electric service to the Site. Dominion East Ohio Gas provides natural gas service to the Site. The Site is currently not contracted for these services.

Telephone Service – Ameritech provides telephone service to the Site.

4.4.2 Safety and Health Services

The Youngstown Fire Department, Station 2, which is located at 125 West Indianola Street, less than one mile west of the Site, provides fire protection and emergency response services for the Site. The Youngstown Police Department, headquartered in the downtown area at 116 West Boardman, provides law enforcement for the area. The nearest medical facility is Saint Elizabeth Hospital, located at 4780 Kirk Road, approximately five miles west of the Site.

4.4.3 Transportation Systems

The USAR Center is located along Miller Street, which is one of a multitude of city streets that primarily run north-south and east-west, within the city limits of Youngstown. One interstate highway and one state highway are located within one-half mile of the USAR Center. Interstate 680 lies north and east of the Site and State Route 7 lies west. The Western Reserve Transit Authority operates the public bus transportation system for the City of Youngstown and offers fixed-route local service. Greyhound/Trailways provides national bus service to the area. Daily Amtrak service is also available. The Mahoning-Trumbull Regional Airport provides air service to the area.

4.5 CULTURAL RESOURCES

The Ohio Historic Preservation Office (OHPO) has determined that the two buildings at the USAR Center are not eligible for the National Register of Historic Places. A copy of their evaluation, which states that no further coordination with OHPO is necessary, is provided in Appendix C.

4.6 NOISE ENVIRONMENT

4.6.1 Noise Sensitive Receptors

The Site is located in an older residential and commercial section of Youngstown. The nearest receptors are residences located to the north, east, and south of the Site. Sources of noise in the surrounding area would primarily be vehicle traffic on roadways, semi-tractor trailer traffic supporting commercial operations, and building air-handling systems.

4.6.2 Facility Noise

In the past, under U.S. Army use, the major noise generation at the facility was from heavy military vehicles, which were operated and parked at the Site, but these were typically equipped with mufflers and did not normally produce noise during repair operations. Noise from these vehicles would have been similar to the noise produced by large commercial vehicles, similar in nature to the vehicles supporting local commercial operations. A search of Federal and State environmental databases yielded no history of noise violations for the Site.

4.7 AIR QUALITY

Air quality for the State of Ohio is the responsibility of the Ohio Environmental Protection Agency, Division of Air Pollution Control. This authority has been granted by the USEPA and promulgated in the Ohio State Implementation Plan. The USAR Center lies within Mahoning County, which is in the Northwest Pennsylvania Air Quality Control Region (AQCR No. 178). Currently, Mahoning County is designated as being in attainment for all criteria air pollutants.

Title V of the Clean Air Act requires that certain air emission sources be permitted to limit the amount and types of emissions from that source. During occupation by the U.S. Army, sources of air emissions at the Site would have included the natural gas heating system, air conditioning system, water heater, heavy equipment use, chemical use and storage for vehicle/paint chemicals, and the indoor rifle range. However, estimated potential emissions at the Site would have been below applicable major source thresholds. As such, the facility would not have been subject to

Title V operating permit requirements or Federally Enforceable State Operating Permit (FESOP) permitting requirements. Additionally, due to the types of air emission sources at the Site, no State (minor source) air permits would have been required. A search of Federal and State environmental databases yielded no history of air quality violations for the Site.

4.8 HAZARDOUS, TOXIC, AND RADIOLOGICAL MATERIALS/WASTES

4.8.1 Past Use, Storage, and Disposal of Hazardous Materials

The Site is currently registered as a RCRA small quantity generator (SQG) of hazardous waste. A records search conducted in January 1995 indicated that the USAR Center had reported possessing five types of characteristic wastes and ten types of listed wastes. Table 1 in Appendix B summarizes the types of RCRA wastes previously managed at the Site. The Site has received no violations or penalties associated with hazardous waste management activities. The Site has also never been tracked in the RCRA Administrative Action Tracking System database. No indications were observed during the 1998 or 2001 EBS site inspections that any hazardous substances remain on site or that substances once present at the Site were improperly disposed.

Although it is not believed that any hazardous substances activity as defined by CERCLA took place at the Site, hazardous substances were used at the facility and would have been stored in amounts necessary to support unit level through direct support level maintenance. These chemicals would have been stored in either the OMS or in the two storage lockers (a CONEX box and a converted tank), located in the western portion of the military parking area.

According to the facility manager little, if any, vehicle maintenance was conducted at the OMS because of the Area Maintenance Support Activity (AMSA), located two blocks from the Site. An AMSA typically performs heavy maintenance, such as rebuilding engines and transmissions. However, there are U.S. Army records that indicate the Site, at times, was used to perform vehicle maintenance for the USAR Center's vehicles, as well as vehicles from other sites. Typical maintenance activities performed at the vehicle maintenance facility over the entire course of site operation could have included the following types of activities: fluid change, tire rotation, lubrication, brake pad replacement, battery activation/charge/recharge, minor repair which did not require component replacement, and component exchange. Component rebuilds would not have occurred at the facility.

Table 2 in Appendix B provides a list of products typically used in a facility similar to the Site. The list also incorporates the known chemicals that were previously managed on site. The list not only includes CERCLA hazardous substances, but includes petroleum products and products defined as hazardous chemicals according to OSHA regulations as well.

With respect to disposal of hazardous materials, no records were found in Federal or Ohio databases for the Site having been assessed any penalties or violations associated with handling hazardous materials. With respect to release of hazardous materials, there are no records of release of CERCLA hazardous materials at the Site. However, petroleum releases have occurred at the Site and are discussed in the following two subsections.

4.8.2 Underground Storage Tank (UST) Presence/Removal

According to Department of Army records, one 8,000-gallon UST was installed during construction of the administration building and one 1,000-gallon UST was installed during construction of the OMS. These tanks were used to store fuel oil for the on-site utility furnaces. The 8,000-gallon tank was located just east of the administration building and the 1,000-gallon tank was located near the southeast corner of the OMS.

Records indicate that the tanks were removed in December 1992. A release was discovered during the removal operations of each UST. Upon removal of the 8,000-gallon UST, visible corrosion of the bare steel tank, a football-sized hole in the bottom of the tank, and the amount of contaminated soil in the excavation, indicated that No. 2 fuel oil had likely leaked from the tank over a period of time. Approximately 90 gallons of fuel oil were also released from the tank during closure procedures. During removal of the 1,000-gallon UST, stained soil was observed in the pit and the tank appeared to contain numerous pinholes in the bottom of the vessel, indicating that fuel oil from this tank had also likely been leaking for some time.

The release was reported to the OEPA and the State Fire Marshal's Bureau of Underground Storage Tanks (BUSTR), and the leaked product (90 gallons) and all visibly contaminated soil (thirty-eight 55-gallon drums) were removed from the excavation and disposed of in accordance with State and local regulations. Both tanks and their associated piping were also removed and transported off site for proper disposal.

Prior to backfilling the excavated areas, post-excavation soil samples and samples of the surface water that infiltrated the excavation (pit water) were collected for analysis. Concentrations of total petroleum hydrocarbon (TPH) and/or other petroleum-related constituents [polynuclear aromatic hydrocarbons (PAHs) and benzene-toluene-ethylbenzene-xylene (BTEX)] were detected in soil and pit water at the Site. Appendix D presents the closure report for the USTs, which includes the results of chemical analyses.

Although not applicable, detected constituents were compared to Federal and State standards. Petroleum constituents detected in the pit water samples were compared to Federal and State maximum contaminant levels (MCLs) for drinking water, and were found to be below these levels. Petroleum constituents detected in the soil samples were compared to OEPA cleanup

standards for hydrocarbon-contaminated soil, which were established in 1999. Soil concentrations were also found to be below the established State standards.

Since the tanks were used for the storage of heating oil, they are not regulated under RCRA Subtitle I. Therefore, BUSTR has no jurisdiction over the tanks and UST closure under BUSTR is not possible. However, the removal contractor conducting the closure sent detailed information about the UST releases to the OEPA Division of Emergency and Remedial Response (DERR) and BUSTR and requested written notification to document that no further action was necessary. To date, neither OEPA nor BUSTR have requested any further remedial action at the Site and have refused written response. Given this, and since residual contaminant concentrations were below established Federal and State action levels, no further action on the part of the U.S. Army is required or warranted. A copy of correspondence from the contractor to the State Fire Marshal and the OEPA is provided in Appendix D.

No fill ports, vents, pumps, or other evidence of a UST were observed during the site visit conducted in January 2001 by the USACE. Additionally, no aboveground storage tanks (ASTs) or signs of contaminated soils were observed during the site inspection

4.8.3 Non-UST Release of Petroleum Products

In addition to the UST petroleum releases discussed in the previous subsection, a petroleum release occurred at the Site in April 1994. The release occurred at the fence line, between the administration building and the former Naval Reserve Center, and migrated to the Navy site. An interview conducted with the 88th RSC Environmental Manager at the time indicates the spill likely occurred from seven 55-gallon drums of waste oil mixed with water that were not properly secured. The drums were stored on the west side of the military parking lot, in an area that was used for storage of oil, lubricants, and paints. It is surmised that lids were not properly fastened on the drums and rainwater filled the containers causing them to overflow.

Five soil samples were taken from the spill area in March 1995 and analyzed for volatile and semi-volatile organic compounds, inorganic constituents, TPH, and polychlorinated biphenyls (PCBs). The samples contained elevated levels of barium, cadmium, chromium, lead, toluene and TPH, but those levels were less than regulatory action levels. The soil removed from the area was classified as non-hazardous petroleum-contaminated waste and disposed of in accordance with State and local regulations.

4.8.4 Current Inventory of Chemicals / Hazardous Substances

During the 3 January 2001 site inspection conducted by the USACE, no chemicals or hazardous substances were observed at the facility. In addition, there was no indication that chemicals or

hazardous substances were improperly stored, handled, or disposed at the Site during past operations. During the records review process, no record was found in Federal or state databases of the Site having been assessed any penalties or violations associated with handling chemicals or hazardous materials.

4.8.5 Polychlorinated Biphenyls (PCBs)

The administration building and the OMS contain older style fluorescent light fixtures installed during construction of the facility, as well as newer fluorescent light fixtures that were likely installed well after construction as replacements for the original fixtures. During the 3 January 2001 site investigation, the USACE observed several ballasts labeled as containing no PCBs. However, these are likely newer fixtures. Many other ballasts throughout the facility did not display PCB labeling. Older fixtures, especially those that are original to the Site, probably contain PCBs. These older ballasts appeared to be in good condition and no leaking dielectric fluid was observed during the site investigation. Any light ballast not marked "No PCBs" should be assumed to fall under EPA's definition of PCB equipment and management and disposal of this equipment must be in accordance with applicable local, State, and Federal requirements.

There is one pole-mounted transformer (ID Number N738) located at the southeast corner of the administration building. It appears new, but does not contain any PCB labeling. According to phone conversations with Ohio Edison in January 2001, this transformer (Westinghouse, 1955 variety) is no longer in service and may contain PCBs. Ohio Edison owns the transformer, would respond to any releases from the unit, and would be responsible for any necessary cleanup. Written confirmation of Ohio Edison's responsibility toward the on-site transformer is presented in Appendix C. No staining was observed near the base of the pole during the January 2001 site inspection.

4.8.6 Radon

A memorandum generated on 21 June 1993 by the Environmental Manager for the 83rd ARCOM documents the results of radon testing that was performed at the USAR Center. As reported, radon measurements at the USAR Center were below 4 picocuries per liter (pC/l). The Site is located in EPA Radon Zone Level 2 and has a predicted average indoor screening level between 2 pCi/l and 4 pCi/l, which falls below EPA Action Levels for radon (4.0 pC/l). The OEPA indicates that readings taken in the area of the USAR Center had a maximum level of 3.6 pCi/l and a median level of 0.8 pCi/l. According to OEPA, the high readings were a result of large amounts of Canadian glacial deposits containing uranium, which are prevalent throughout Ohio.

4.8.7 Asbestos-Containing Material (ACM)

As part of an effort documented by the R*ange Cleanup, SSG Gus Kefurt U.S. Army Reserve Center (OH069) Final Report*, dated 22 September 2000, IT Corporation conducted asbestos inspections and abatement throughout the facility. A copy of the asbestos abatement report is included in Appendix E. In the initial effort, a State of Ohio Licensed Asbestos Hazard Evaluation Specialist conducted an AHERA-level inspection for ACM. The survey included identifying all ACM, sampling suspect materials in accordance with AHERA, and analyzing the suspect ACM samples using an accredited laboratory. As part of the inspection, 33 samples were collected and analyzed for possible ACM. The report identified asbestos to be present in: 1) black mastic and 9 x 9 in. floor tiles throughout the building; 2) thermal system insulation consisting of white mag pipe insulation, air cell insulation, and tan pipe insulation throughout the building; 3) boiler room insulation on a large tank and a heat exchanger; and 4) the gun range HVAC duct insulation.

Asbestos abatement activities were then performed March 21 through March 30, 2000. The abatement consisted of glove-bag removal of approximately 1,467 lineal feet of asbestos containing pipe insulation, removal of 200 square feet of non-friable asbestos containing floor tile, removal of 20 square feet of non-friable asbestos containing duct insulation and repair (by wrapping) of 723 lineal feet of asbestos containing pipe insulation. Approximately 2,320 lineal feet of asbestos-containing pipe insulation was left in place throughout the administration building and does not require repair. A copy of the report documenting asbestos abatement activities at the Site is included in Appendix E.

4.8.8 Lead

There are two suspected sources of lead at the USAR Center: lead-based paint (LBP) and indoor rifle range activities. The rifle range is no longer a source of lead, as it was decommissioned and remediated in 2000. LBP is still present on site and continues to be a source of lead dust at the facility. The following subsections provide additional information regarding the presence of lead at the facility.

Since LBP and lead dust are present at the Site, the facility should be managed in accordance with applicable Federal, State, and local regulations. Following is a list of Federal regulations that are currently applicable to the management of facilities containing LBP: 29 CFR 1962.62; TSCA Sections 402, 403, 406(b), 1017, 1018, and 1021; 40 CFR Part 745; and 29 CFR 1910.1025.

4.8.8.1 Presence of Lead-Based Paint and LBP-Derived Dust

Cracked, peeling, and deteriorated paint was noted throughout the administration building. However, the majority of this paint is not considered LBP, as previous testing conducted in 2000 confirmed lead contents of 0.28 percent or less, which is below the 0.5 percent limit that enables the paint to be disposed of by normal means.

According to the comprehensive LBP inspection conducted on 27 September 2000, LBP is present at the facility and is located in the following areas/rooms: one room in the southwest corner of the basement, both stairwells, the first-floor drill hall, and one room on the second floor. LBP was primarily found on metal surfaces, including the metal garage door and frame, window sashes and guards, metal stairway components, and radiators. Lower portions of block walls also tested positive for LBP in a few locations. The condition of these surfaces are generally either good or satisfactory; however, three metal surfaces, a garage doorframe, a stair handrail, and one window guard, were found in either unsatisfactory or poor condition. A written report for the 2000 LBP inspection can be found in Appendix F.

During the LBP inspection, wipe samples were collected from floor surfaces to measure the content of lead in floor dust. Lead was detected in all 20 floor-wipe samples collected from the administration building. Concentrations ranged from 10.5 to 690 micrograms per square foot (ug/ft^2). Sixteen of the 20 results were above the U.S. Department of Housing and Urban Development (HUD) standard of 40 ug/ft^2 for child-occupied facilities. Sample locations having concentrations above the HUD standard include: the former rifle range room in the basement, one room in the southwest corner of the basement, the stairwells connecting all floors, the first-floor drill hall, three rooms connected to the drill hall, one room on the second floor, and the hallway on the second floor. The highest concentrations were detected in the stairwells and the drill hall. Figures 3 and 4 in Appendix A provide the general locations and analytical results for the floor wipe samples collected.

A comparison of the locations of LBP relative to the locations of elevated levels of lead on the floor showed good correlation. Figures 3 and 4 in Appendix B depict locations of LBP relative to the locations of elevated levels of lead in floor dust samples. The highest concentrations of lead dust were located in areas that also contained LBP, which included the stairwells and drill hall. Overall, ten of the 16 locations having elevated levels of lead dust were located in rooms or areas that contained LBP. Of the six locations that could not be directly attributed to LBP, three were in rooms that were directly connected to the drill hall. Two other locations were on the second floor, which can only be accessed by the northern stairwell. Given the close proximity of these five locations to areas having the highest concentrations of lead dust, the presence of the lead dust at these locations can be attributed to foot traffic from the stairwells and drill hall. The

remaining location having elevated lead dust, but absent of LBP, is the rifle range, which was cleaned to a level of 200-ug/ft^2.

4.8.8.2 Former Indoor Rifle Range

The small-arms firing range, which was located inside the basement of the administration building, was cleaned between February and August 2000. A copy of the report that documents the remediation is included in Appendix F. Cleanup activities included removal and disposal of 10.79 tons of lead-contaminated sand, removal and recycling of 8,910 pounds of scrap steel, and removal and disposal of 6.36 tons of non-hazardous debris. The range was also double-washed and HEPA-vacuumed. Range cleaning activities rendered the range free of known or suspected lead-dust surfaces that exceed the project clearance level of 200 ug/ft^2. Soil samples were also collected outside of the window well that was used for the range venting system and were tested for lead content. Three samples were collected and lead concentrations ranged from 39 to 160 milligrams per kilogram (mg/kg).

As discussed in the previous subsection, lead dust on the floors of the administration building, with the exception of the rifle range, has been attributed to the presence of LBP at the facility. However, to further verify this finding, a comparison of the locations of lead dust throughout the facility with respect to the location of the rifle range was performed. The comparison produced three areas that could not be attributed to rifle range activities, which further supports the lead source determination. The first location is the southern stairwell (Figure 4 in Appendix B). This stairwell is located on the opposite side of the building from the rifle range and would not have been used by range users to enter and exit the range. Range users would have used the northern stairwell, which is adjacent to the range, for access to the range. The second location containing lead dust that could not be attributed to the range is one room in the southwestern portion of the basement, which is also situated on the opposite side of the basement (Figure 4 in Appendix B). This room also tested positive for LBP on the window sash, and is adjacent to the southern stairwell. In addition to the distal locations of these two areas to the range, lead data for a wipe sample taken in the basement along the pathway between the range and the southwest corner of the basement, which met the HUD standard, also suggests that lead was not tracked from the range to this area. Lastly, the presence of elevated lead on the second floor cannot be attributed to rifle range activities in the basement.

4.8.9 Unexploded Ordinance

No indications were found during the 1998 or 2001 site inspections or records review to indicate the presence of unexploded ordinance at the Site.

4.9 NATURAL RESOURCES

4.9.1 Wetlands

A review of a Department of the Interior National Wetlands Inventory Map, dated 1977, indicates that there are no wetlands on the property. The absence of wetland areas was confirmed by observations made during the field investigation of the Site.

4.9.2 Threatened/Endangered Species

The U.S. Fish and Wildlife Service (USFWS) states that Mahoning County lies in the range of the Indiana bat, a Federally-listed endangered species, and that there is a slight possibility the bat could occur at the USAR Center during summer months if habitat requirements are present. Habitat requirements include dead trees and snags along riparian corridors with exfoliating bark or cavities in the trunk or branches, live trees with exfoliating bark, or stream and riparian corridors with nearby woodlots. Such habitat was not observed in close proximity to the Site. Two large trees lie in the area of the northwest corner of the Site near the administration building. However, these trees have smooth bark and therefore are not conducive to Indiana bat habitat.

The Ohio Department of Natural Resources (ODNR) states there are no unique ecological sites, geologic features, breeding or non-breeding animal concentrations, champion trees, forests, or wildlife areas in the vicinity of the USAR Center. Copies of evaluations from the USFWS and ODNR are provided in Appendix C.

4.9.3 100-Year Flood Zone

According to the Federal Emergency Management Agency (FEMA) digital flood hazard map for the surrounding area, the Site is not within the 100-year or 500-year floodplain. The closest floodplain area is approximately one mile northeast of the Site and is associated with the Mahoning River.

4.9.4 Coastal Zone Management

The ODNR is the lead agency for the Ohio Coastal Management Program (OCMP). According to Ms. Christine Casselmann, with the ODNR, the boundary of the OCMP does not extend to Youngstown. Therefore, the Site would not be subject to a federal consistency determination under the program. However, if the proposed action had the potential to impact coastal areas within Ohio, then the action would be subject to a consistency determination. According to Ms. Casselmann, given the distance of the Site from coastal areas and the type of future use of the Site, impacts to coastal areas would not be anticipated.

4.9.5 Other Special Resources

As reported in the National Wild and Scenic Rivers System, which is maintained by the National Park Service (NPS), four federally-designated Wild & Scenic Rivers are located in the State of Ohio. Although none are located in Mahoning County, one river does flow through an adjacent county. Little Beaver Creek flows through Columbiana County, approximately 30 miles south of Youngstown. This river is not located near the Site and would not be impacted by site activities.

5.0 ENVIRONMENTAL AND SOCIOECONOMIC CONSEQUENCES

5.1 LAND USE

5.1.1 Alternative 1 – Proposed Action

Under the proposed action, the facility would be transferred to the City of Youngstown in its entirety. The City would then assume responsibility for the future use of the property for educational purposes. Current proposals by the City regarding the disposition of the Site include conveying the property to the Cardinal Mooney High School, a nearby, private school that is considering use of the facility for an athletic complex. The Site is located in an older residential and commercial section of Youngstown and is zoned General Business. This high school is located across the street from the Site and property adjacent to and northwest of the Site is currently owned and used by this school for athletic activities. As such, use of the USAR Center by the school as an athletic complex would be consistent with surrounding land use. The USAR Center is bordered to the south, north, and east by residential neighborhoods. Commercial and light-industrial properties are located along streets surrounding the Site.

Use of the Site by the City for educational purposes is not expected to adversely impact land use and would be compatible with land use in the surrounding area. The Site is currently vacant and has been subject to vandalism since site closure. Occupation of the Site would alleviate this activity, which would positively impact the community.

5.1.2 Alternative 2 – No-Action/Caretaker

Under the No-Action/Caretaker alternative, the building structures and land would not be used. Facility gates would remain locked with the U.S. Army providing minimal security and maintenance for safety only. Periodic building and ground maintenance would only be performed to minimize deterioration of the property. The use of herbicides may be required in conjunction with mowing in order to control vegetation growth in cracks of the existing parking areas and sidewalks. Application of herbicides (if needed) would be used per label specifications to minimize the potential for contamination of soil or area groundwater. In the past the Site has been subject to vandalism, despite locked fencing. In the future under this scenario, this type of activity would most likely continue, which would be detrimental to the aesthetics of the property.

5.2 SOCIOECONOMICS

5.2.1 Alternative 1 – Proposed Action

Under this alternative, occupation of the Site would enhance the aesthetics of the property, which would have a positive impact on the community. Currently, there are no employees working out of the facility; therefore, a decrease in area jobs would not occur if this alternative were implemented. Future use by the City of Youngstown may or may not result in an increase in area jobs, depending on whether the City (or school) transfers current employees to this location or creates new employment positions.

The proposed action is not designed to create a benefit for any group or individual. The City of Youngstown would use the property for educational purposes, which would inherently support the entire community. The population immediately surrounding the Site is predominantly comprised of low-income families, many of which are single-parent households. Transfer of the Site would not create any adverse human health or environmental impacts on these low-income populations. Rather, the use of the facility by the local high school for athletic purposes would enhance after-school activities for children and positively impact the community. Given this, no adverse socioeconomic impacts are anticipated under this alternative.

5.2.2 Alternative 2 – No-Action/Caretaker

Adverse socioeconomic impacts are not expected under this alternative. However, continued vandalism of the property could work to foster negative opinions of the premises.

5.3 SITE HYDROLOGY AND GEOLOGY

5.3.1 Alternative 1 – Proposed Action

Use of the property by the City of Youngstown for educational purposes is not expected to adversely impact area soils. Use would not be for heavy industrial purposes; therefore, use of hazardous materials and generation of hazardous waste, which would have the potential to impact the environment, is not expected.

5.3.2 Alternative 2 – No-Action/Caretaker

Area soils and groundwater would not be impacted by this alternative.

5.4 PUBLIC SERVICES

5.4.1 Alternative 1 – Proposed Action

Public services, including utilities, safety, health services, and transportation systems would not be impacted by this alternative.

5.4.2 Alternative 2 – No-Action/Caretaker

Public services, including utilities, safety, health services, and transportation systems would not be impacted by this alternative. However, continued trespassing could create a safety concern, especially as the building structures continued to age.

5.5 CULTURAL RESOURCES

5.5.1 Alternative 1 – Proposed Action

No cultural resources are present at the facility; therefore, no impacts to cultural resources are expected under this alternative.

5.5.2 Alternative 2 – No-Action/Caretaker

No cultural resources are present at the facility; therefore, no impacts to cultural resources are expected under this alternative.

5.6 NOISE ENVIRONMENT

5.6.1 Alternative 1 – Proposed Action

Under this alternative, use of the Site by the City of Youngstown for educational purposes would be compatible with surrounding land use and is not expected to negatively impact the current noise environment.

5.6.2 Alternative 2 – No-Action/Caretaker

The current noise environment of the surrounding area would not be affected by this alternative.

5.7 AIR QUALITY

5.7.1 Alternative 1 – Proposed Action

Under this alternative, use of the Site by the City of Youngstown for educational purposes would be compatible with surrounding land use and is not expected to adversely impact air quality.

5.7.2 Alternative 2 – No-Action/Caretaker

Air quality of the surrounding area would not be affected by this alternative.

5.8 HAZARDOUS, TOXIC, AND RADIOLOGICAL MATERIALS/WASTES

5.8.1 Alternative 1 – Proposed Action

Hazardous chemicals were used in the past at the facility. However, there are no indications that hazardous substances were ever improperly managed or disposed at the Site. Petroleum products were released as the Site, but appropriate remedial actions were taken to alleviate negative impacts to the environment. Past releases of petroleum products at the Site do not pose a threat to human health.

Many surrounding businesses use and manage hazardous materials and generate hazardous wastes. Although use of RCRA-regulated materials and CERCLA hazardous substances activity is not anticipated under the proposed action, any future use or handling of hazardous, toxic, or radiological material or wastes at the facility would be subject to applicable Federal and State regulations, including, but not limited to OSHA, RCRA, and/or CERCLA regulations. These regulations are designed to protect and inform both employees and the surrounding communities and protect the environment from adverse impacts of this activity. As such, and given the compliance history of the surrounding business, adverse impacts from any future use of chemicals and materials at the Site (which is not anticipated) are not expected.

5.8.2 Alternative 2 – No-Action/Caretaker

Since all hazardous and toxic materials and wastes have been removed from the USAR Center, there would be no impact by these materials/wastes under this alternative. However, since comfort heating and cooling is not provided to the vacant buildings, the condition of lead-based paint and asbestos-containing material inside the administration building would continue to decline due to temperature and humidity fluctuations.

5.9 NATURAL RESOURCES

5.9.1 Alternative 1 – Proposed Action

No natural resources are present at the facility; therefore, no impacts to cultural resources are expected under this alternative.

5.9.2 Alternative 2 – No-Action/Caretaker

No natural resources are present at the facility; therefore, no impacts to cultural resources are expected under this alternative.

6.0 CONCLUSIONS

Based upon the findings of this EA, the implementation of Alternative 1 (Proposed Action) would not have a significant adverse individual or cumulative impact on the quality of the environment, either human or natural, in the area of potential effect for this action. It is further determined that implementation of the proposed action would have the beneficial result of providing at no cost to the City of Youngstown a facility to be used for educational purposes. Use of the facility for educational purposes would be consistent with surrounding area use.

Implementation of Alternative 2 (No-Action/Caretaker) would also have no significant adverse impacts on the environment. However, since comfort heating and cooling is not provided to the vacant buildings, the condition of lead-based paint and asbestos-containing material inside the administration building would continue to decline due to temperature and humidity fluctuations. In addition, the Site has suffered vandalism since site closure, which has impacted the aesthetics of the property. This type of activity could continue under the No-Action alternative. Implementation of this alternative would also not relieve the USAR of excess property, causing continued upkeep and maintenance costs.

Based on the analysis of potential impacts, it has been determined that the proposed action does not constitute a major Federal action negatively affecting the quality of human health or the environment, nor is the proposed action expected to be controversial. Since there would be no significant negative impacts resulting from the implementation of the proposed action, a Finding of No Significant Impact (FNSI) has been prepared to accompany this EA and concludes that the next higher level of environmental impact investigation under NEPA for this action, an Environmental Impact Statement (EIS), is not required and will not be prepared.

Resources Consulted (continued)

- Annual Utilization Survey, 1 March 1989, reviewed by GEC
- Memoranda from February 1989 regarding conditions at Kefurt USARC, reviewed by GEC
- 17 March 1998 Memorandum, sample logs, and laboratory analysis reports regarding an Industrial Hygiene / Environmental Health Survey, reviewed by GEC, reviewed by GEC
- Affidavit of SGT John Currie, 17 May 1952, regarding initial occupancy of Kefurt USARC, reviewed by GEC
- Range Cleanup, SSG Gus Kefurt U.S. Army Reserve Center (OH069), Youngstown, Ohio, Final Report, prepared by IT Corp., dated 22 September 2000
- Letter Report, Lead Risk Assessment and Lead-Based Paint Inspection, Kefurt USARC, 11 October 2000
- EBS Property Inspection Checklist, form dated August 1997
- Federal Databases
    - National Priorities List (NPL)
    - Resource Conservation and Recovery Act (RCRA) – TSD's Subject to Corrective Action (CORRACTS)
    - RCRIS – Non-Corrective Action Treatment, Storage, and Disposal Facilities (TSD)
    - Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS)
    - No Further Remedial Action Planned Sites (NFRAP)
    - RCRIS Large Quantity Generators (RCRA LG)
    - RCRIS Small Quantity Generators (RCRA SG)
    - Emergency Response Notification System (ERNS)
- Fire Insurance Maps, by GEC
    - Sanborn Fire Insurance Map, 1928
    - Sanborn Fire Insurance Map, 1950
    - Sanborn Fire Insurance Map, 1983
    - Sanborn Fire Insurance Map, 1989
- State Databases
    - Ohio Master Sites List, by GEC
    - Ohio Leaking Underground Storage Tanks Database
    - Ohio Equivalent CERCLIS List Database
    - Ohio Spills Database
    - Ohio Underground Storage Tank Database
    - Ohio Solid Waste Landfills, Incinerators, or Transfer Stations Database

Resources Consulted (continued)

- USGS Topographic Quadrangle Maps
  - 7.5' Youngstown, Ohio, 1951, 1963, 1970 (revised), 1984 (revised), and 1994
- 1950, 1962, 1970 and 1983 aerial photographs of Youngstown, Ohio obtained from VISTA Information Solutions, 1-800-767-0403, Job # 376315-612487
- 1999 Youngstown Department of Water website, http://www.youngstownwater.com
- Ohio Department of Natural Resources, Division of Water, Water Well Log and Drilling Report website, http://www.dnr.state.oh.us
- 29 Code of Federal Regulations (CFR) 1926.62
- 29 CFR 1910.1025
- Section 402, Toxic Substances Control Act
- VISTA Information Solutions, Inc., Site Assessment Report, 14 December 2000, www.vistainfo.com
- EPA Map of Radon Zones for Ohio, January 2001, www.epa.gov/iaq/radon
- National Wild and Scenic Rivers System, http://www.nps.gov/rivers/wildriverslist.html
- ESRI/FEMA Project Impact Hazard Information and Awareness Site, www.esri.com/hazards
- Demographic, lifestyle, and PRIZM data provided by Claritas, Inc.
- U.S Census Bureau, 1997 Economic Census: Summary of Statistics for Youngstown-Warren, OH MSA
- Regional Economic Information System, Bureau of Economic Analysis, BEARFACTS, Youngstown-Warren, OH, 1988-1998.
- U.S. Census Bureau, 1990 US Census Data for the City of Youngstown
- FedStats website, www.fedstats.gov/regional.html
- Ohio Job Net Online, www.state.oh.us/obes/
- Ohio Department of Job and Family Services Online, www.state.oh.us/odjfs/index.stm
- Youngstown-Warren Regional Chamber of Commerce, www.regionalchamber.com
- Bureau of Labor Statistics, http://stats.bls.gov/eag/eag.youngstown.htm

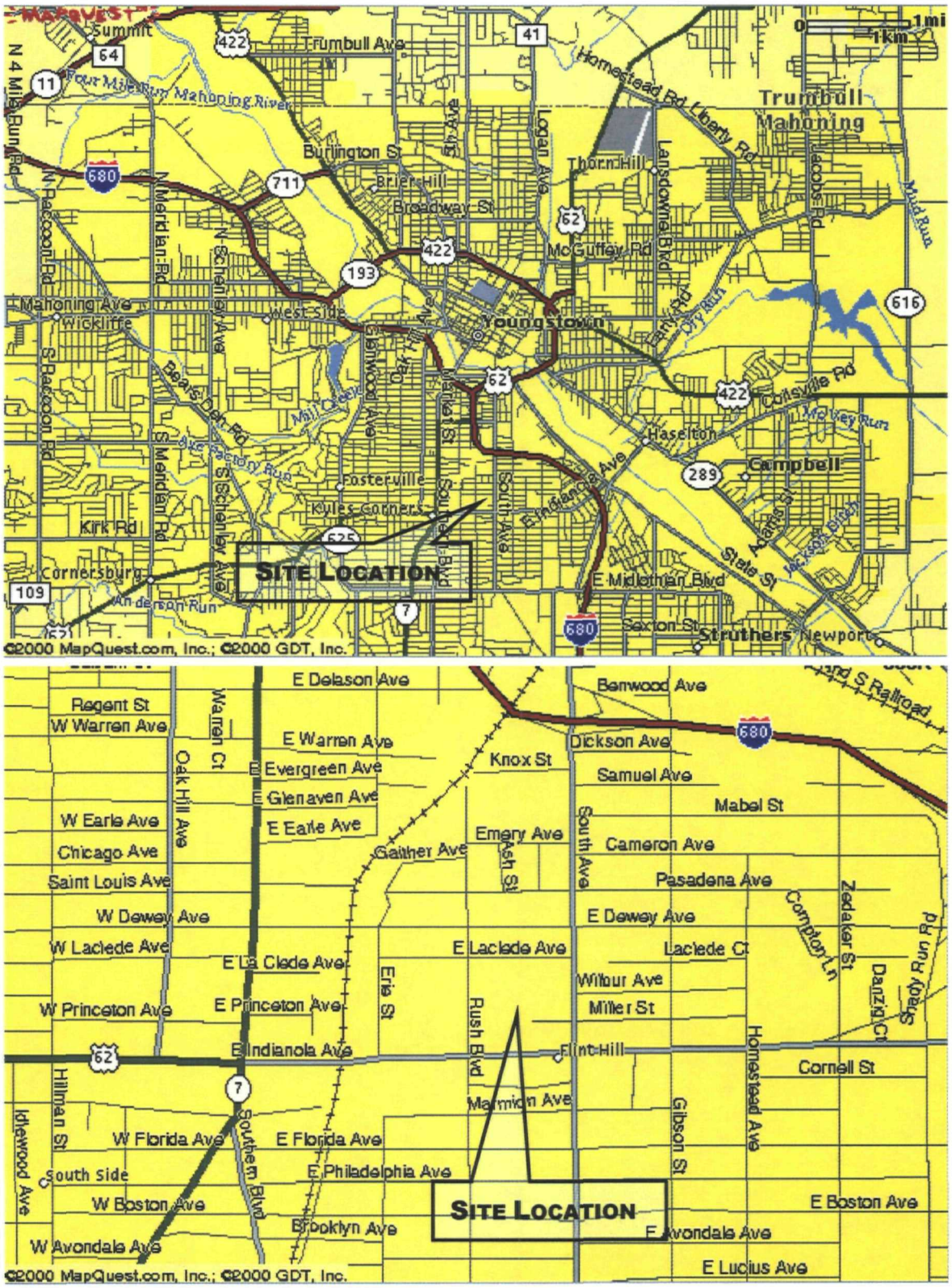
Agencies Contacted

- Youngstown Water Department, (330) 742-8749
- Mahoning County Sanitation Engineers, (330) 793-5514
- Youngstown Zoning Department, (330) 742-8842
- Dominion East Ohio Gas, (330) 746-7611
- Ohio Environmental Protection Agency (OEPA), (614) 664-2752

APPENDIX
A

APPENDIX A

SITE MAPS



U.S. ARMY
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LOUISVILLE DISTRICT
ENGINEERING DIVISION

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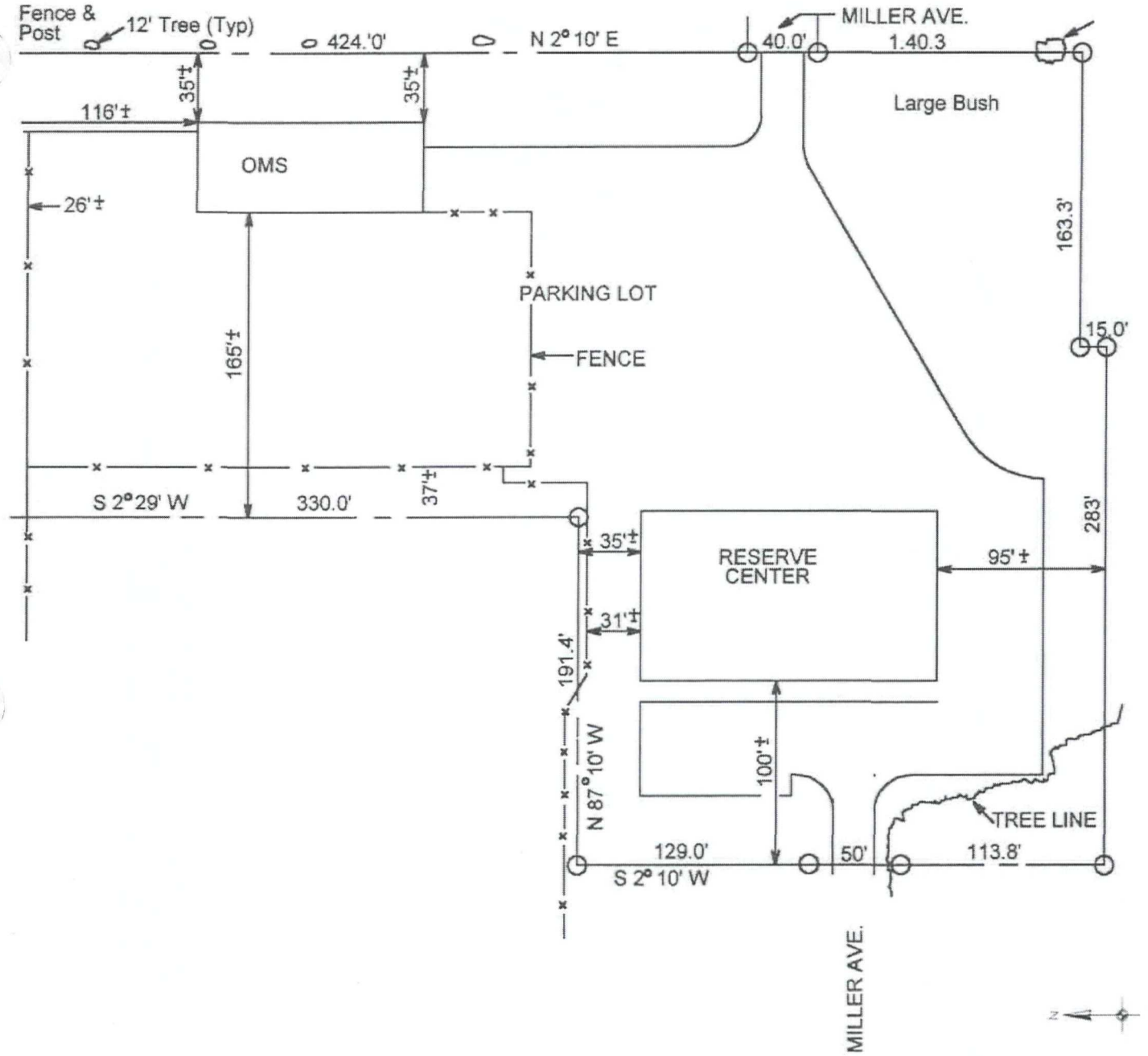
FIGURE 1
SITE LOCATION MAP

ENVIRONMENTAL ASSESSMENT
SSG GUS KEFURT USAR CENTER (OH069)
YOUNGSTOWN, OHIO



U.S. ARMY
CORPS OF ENGINEERS
LOUISVILLE DISTRICT
ENGINEERING DIVISION

FIGURE 2

SITE PLAN

ENVIRONMENTAL ASSESSMENT
SSG GUS KEFURT USAR CENTER (OH069)
YOUNGSTOWN, OHIO

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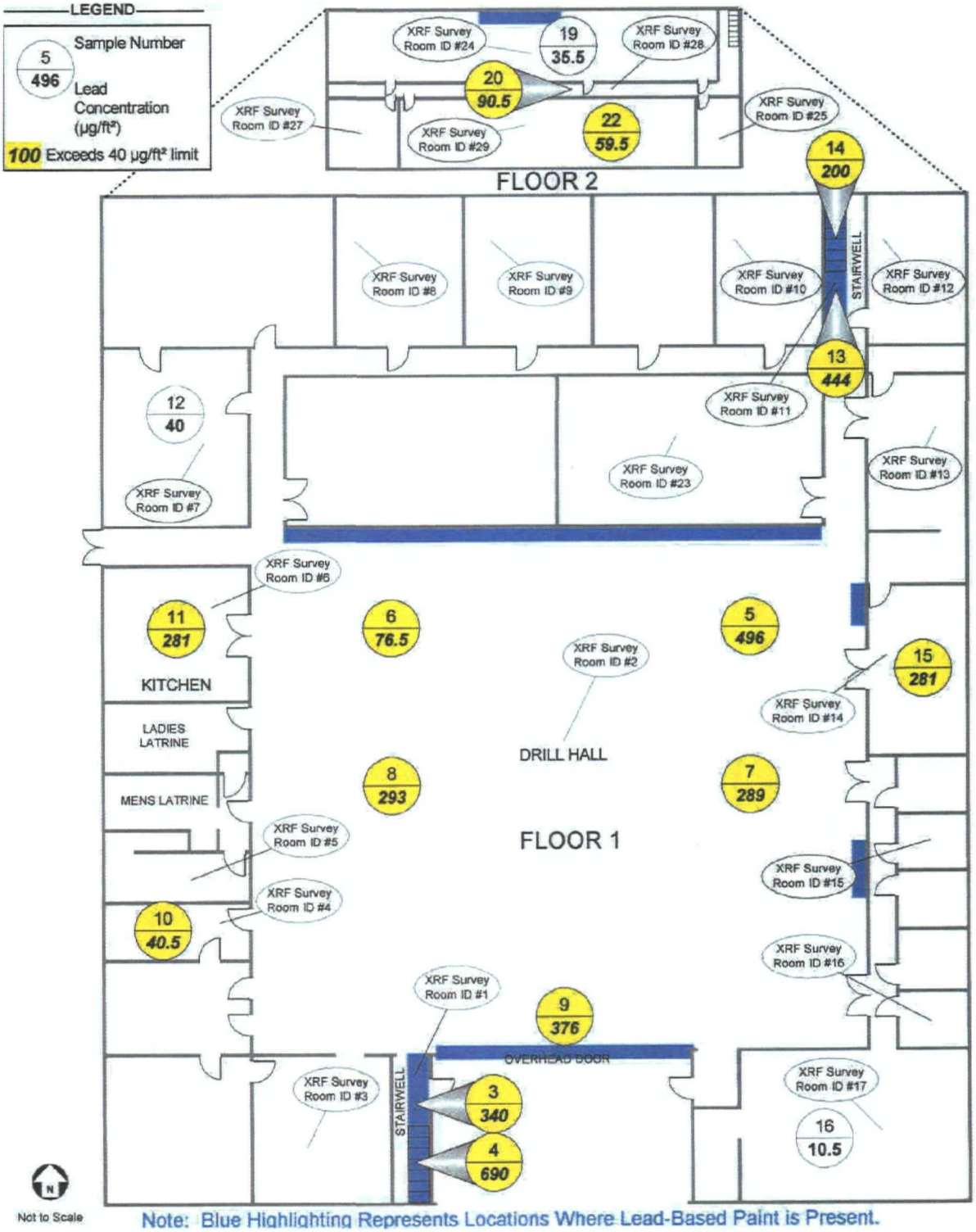

FIGURE 3

U.S. ARMY
CORPS OF ENGINEERS
LOUISVILLE DISTRICT
ENGINEERING DIVISION

LOCATIONS OF LEAD-BASED PAINT RELATIVE TO LOCATIONS OF ELEVATED LEAD IN FLOOR DUST SAMPLES – FIRST FLOOR

ENVIRONMENTAL ASSESSMENT
SSG GUS KEFURT USAR CENTER (OH069)
YOUNGSTOWN, OHIO

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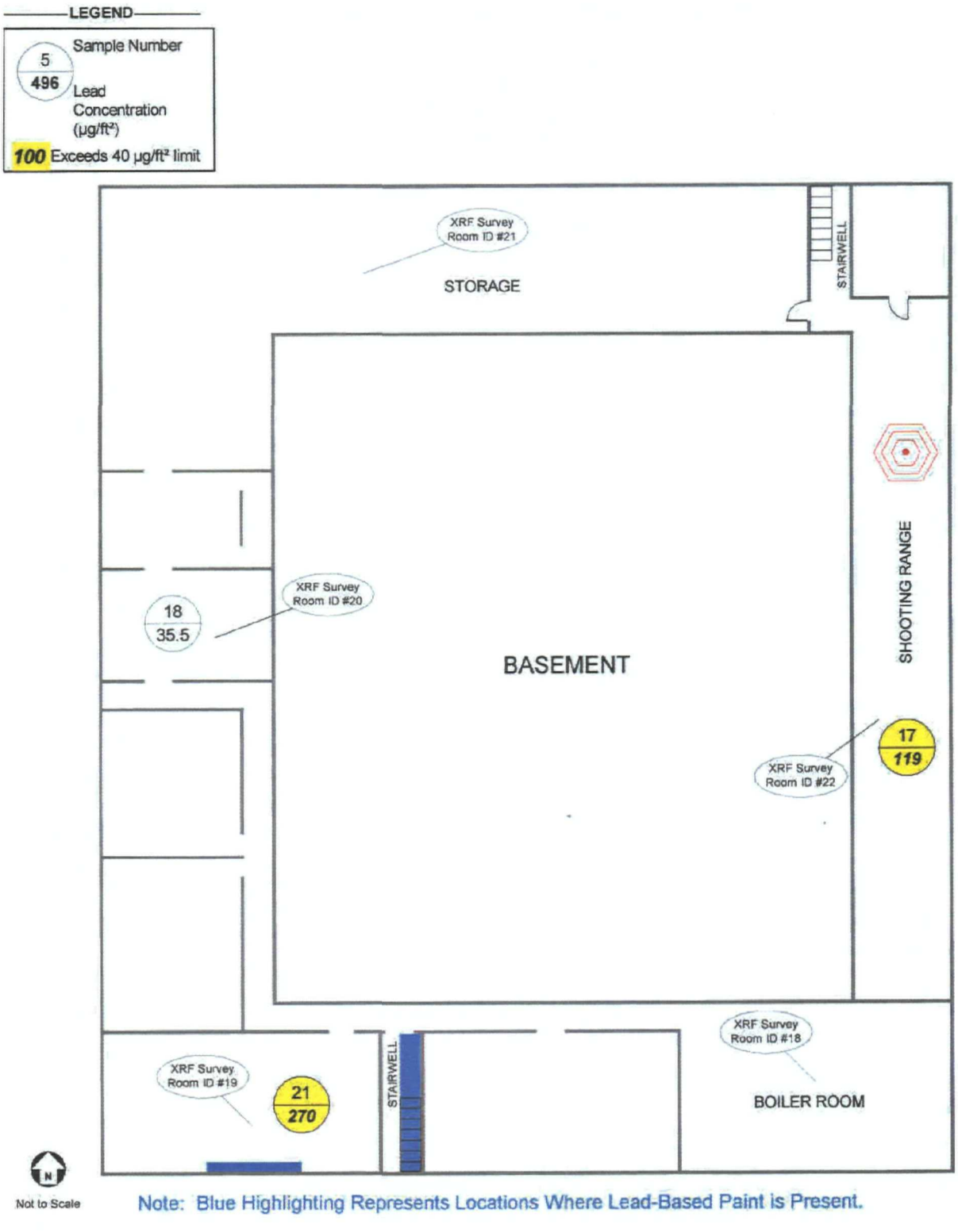

FIGURE 4

U.S. ARMY
CORPS OF ENGINEERS
LOUISVILLE DISTRICT
ENGINEERING DIVISION

LOCATIONS OF LEAD-BASED PAINT RELATIVE TO LOCATIONS OF ELEVATED LEAD IN FLOOR DUST SAMPLES – BASEMENT

ENVIRONMENTAL ASSESSMENT
SSG GUS KEFURT USAR CENTER (OH069)
YOUNGSTOWN, OHIO

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APPENDIX
B

APPENDIX B

TABLES

TABLE 1
RCRA HAZARDOUS WASTES MANAGED AT THE SITE

CHARACTERISTIC WASTES: (FROM 30 CFR 261 SUBPART C)

D001	A solid waste that exhibits the characteristics of ignitability, but is not listed as hazardous waste in RCRA Subpart D
D002	A solid waste that exhibits the characteristics of corrosivity, but is not listed as hazardous waste in RCRA Subpart D
D003	A solid waste that exhibits the characteristics of reactivity, but is not listed as hazardous waste in RCRA Subpart D
D008*	A solid waste that exhibits the characteristic of toxicity, due to the concentration of leachable lead in the substance, but is not listed as a hazardous waste in RCRA Subpart D.
D009*	A solid waste that exhibits the characteristic of toxicity, due to the concentration of leachable mercury in the substance, but is not listed as a hazardous waste in RCRA Subpart D.

LISTED WASTES: (FROM 30 CFR 261 SUBPART D)

F001*	Spent halogenated solvents used in degreasing: tetrachloroethylene
F002*	Spent halogenated solvents: methylene chloride
F003*	Spent non-halogenated solvents: xylene, acetone
F005*	Spent non-halogenated solvents: toluene, methyl ethyl ketone (MEK)
U051	Wood creosote, CAS#8021-39-4
U211*	Carbon tetrachloride, CAS#56-23-5
U240*	2,4-Dichlorophenoxyacetic acid (2,4-D acid), CAS# 94-75-7
U244*	Thiram, CAS#137-26-8
U246*	Cyanogen bromide, CAS#506-68-3
U359*	2-Ethoxyethanol, CAS#110-80-5

** Denotes wastes that contain CERCLA hazardous substances, which are as follows: lead (CAS# 7439-92-1), mercury (CAS# 7439-97-6), tetrachloroethylene (CAS# 127-18-4), methylene choride (CAS# 75-09-2), acetone (CAS# 67-64-1), MEK (CAS# 78-93-3), carbon tetrachloride, 2,4-D acid, thiram, cyanogens bromide, and 2-ethoxyethanol*

TABLE 2
SUBSTANCES LIKELY STORED AT THE SITE

SUBSTANCE STORED (1,2,3)	SUBSTANCE STORED (1,2,3)
Solder/Flux	Used antifreeze
Solvent-based cleaners	Sulfuric acid
Aqueous cleaners / degreasers	Dry cell batteries
Sealant	Lithium batteries
CARC Paint	Wet cell lead acid batteries
Primer	Tire and rim lubricant
Lacquer thinner / mineral spirits	Oil
Insect repellant	Hydraulic fluid
Grease	Power steering fluid
Epoxy resin	Isopropyl alcohol
Starter fluid	Gear oil
Inhibitor	Fuel additive
Propane	Methanol
Household cleaner	Kerosene
Denatured alcohol	Diesel fuel
Antifreeze	Acetone
Transmission fluid	Xylene
Brake fluid	Refrigerant
Used oil / oil filters	Refrigeration lubricant
2,4-D (herbicide component)	Thiram (fungicide and animal repellant component)
Cyanogen bromide	2-ethoxyethanol (solvent)
Wood creosote	Carbon tetrachloride (solvent)
Toluene (solvent, gasoline constituent)	Methyl ethyl ketone (solvent)
Tetrachloroethylene (solvent)	Methylene chloride (solvent)
Lead-containing products/wastes	Mercury-containing products/wastes

(1) Storage of these chemicals would have been rotational in nature to support maintenance activities at the Site from 1950 to 1994.

(2) Substances listed above represent OSHA hazardous chemicals, petroleum products, and CERCLA hazardous substances.

(3) Any chemicals containing CERCLA hazardous substances would have been stored at quantities that were below corresponding CERCLA Activity Thresholds.

APPENDIX
C

APPENDIX C

CONCURRENCE LETTERS

Ohio Historic Preservation Office

567 East Hudson Street
Columbus, Ohio 43211-1030
614/ 297-2470 Fax: 614/ 297-2496

Visit us at www.ohiohistory.org/resource/histpres/

OHIO HISTORICAL SOCIETY
SINCE 1885

August 13, 1998

Jeff Robinson
Gulf Engineers & Consultants
P.O. Box 84010
Baton Rouge, LA 70884-4010

Dear Mr. Robinson:

RE: Environmental Baseline Studies for 3 Properties, OH

This letter is in response to your correspondence, received on July 9, 1998, concerning the properties noted above. Three separate properties are proposed for disposal- the Kefart USARC in Youngstown, another USARC in Toledo, and a maintenance facility identified as AMSA # 72 that is located in Perrysburg.

My staff has carefully reviewed the information you submitted. Based on their recommendation, it is my opinion that these buildings are not eligible for the National Register of Historic Places. The proposed projects will, therefore, have no effect on properties listed in or eligible for the National Register. No further coordination is necessary for these projects unless there is a change in the scope of the work proposed.

If you have any questions about this letter or our review of this project, please contact Lisa Adkins, Program Coordinator, at (614) 297-2470. Thank you for your cooperation.

Sincerely,

Mark J. Epstein, Department Head
Resource Protection and Review

MJE/LAA:la

United States Department of the Interior

FISH AND WILDLIFE SERVICE

Ecological Services
6950 Americana Parkway, Suite H
Reynoldsburg, Ohio 43068-4132

May 12, 1998

Jeff Robinson
GEC
P.O. Box 84010
Baton Rouge, Louisiana 70809-1910

Dear Mr. Robinson:

This responds to your request for information about federally listed endangered and threatened species that may occur at 3 U.S. Army properties. The properties are the "Gus Kefurt United States Army Reserve Center" in Youngstown, Ohio (Mahoning County), "Toledo USARC" in Toledo, Ohio (Lucas County), and "Perrysburg AMSA" in Perrysburg, Ohio (Lucas County).

ENDANGERED SPECIES COMMENTS:

Gus Kefurt USARC

The "Gus Kefurt United States Army Reserve Center" in Mahoning County lies within the range of the Indiana bat (E) and bald eagle (T), federally listed endangered (E) or threatened (T) species. It is highly unlikely that the bald eagle would occur on this site within the city of Youngstown. There is a slight possibility that the Indiana bat could occur at the site in summer if trees of suitable structure were available. Summer habitat requirements for this species are not well defined but the following are thought to be of importance:

1. Dead trees and snags along riparian corridors especially those with exfoliating bark or cavities in the trunk or branches which may be used as maternity roost areas.

2. Live trees (such as shagbark hickory) which have exfoliating bark.

3. Stream corridors, riparian areas, and nearby woodlots which provide forage sites.

We recommend that if trees with exfoliating bark (which could be potential roost trees) are encountered in the project area, they and surrounding trees should be saved wherever possible. If they must be cut, they should not be cut between April 15 and September 15.

If desirable trees are present and if the above time restriction is unacceptable, mist net or other surveys should be conducted to determine if bats are present. If a survey is necessary it should be designed and conducted in coordination with the endangered species coordinator for this office, Mr. Buddy Fazio. The survey should be conducted in June or July since the bats would only be expected in the project area from approximately April 15 to September 15.

Toledo USARC

The "Toledo USARC" in Lucas County lies within the range of the Indiana bat (E), peregrine falcon (E), piping plover (E), Karner blue butterfly (E), bald eagle (T), and eastern prairie fringed orchid, federally listed endangered (E) or threatened (T) species. It is highly unlikely that the peregrine falcon, piping plover, Karner blue butterfly, bald eagle, or eastern prairie fringed orchid occur at the site. There is a slight possibility that the Indiana bat could occur at the site in summer if trees of suitable structure were available. Summer habitat requirements for this species are not well defined but the following are thought to be of importance:

1. Dead trees and snags along riparian corridors especially those with exfoliating bark or cavities in the trunk or branches which may be used as maternity roost areas.

2. Live trees (such as shagbark hickory) which have exfoliating bark.

3. Stream corridors, riparian areas, and nearby woodlots which provide forage sites.

We recommend that if trees with exfoliating bark (which could be potential roost trees) are encountered in the project area, they and surrounding trees should be saved wherever possible. If they must be cut, they should not be cut between April 15 and September 15.

If desirable trees are present and if the above time restriction is unacceptable, mist net or other surveys should be conducted to determine if bats are present. If a survey is necessary it should be designed and conducted in coordination with the endangered species coordinator for this office, Mr. Buddy Fazio. The survey should be conducted in June or July since the bats would only be expected in the project area from approximately April 15 to September 15.

Perrysburg AMSA

The "Perrysburg AMSA" in Wood County lies within the range of the Indiana bat (E) and bald eagle (T), federally listed endangered (E) or threatened (T) species. It is highly unlikely that the bald eagle would regularly, or even incidentally, occur on this site. There is a slight possibility that the Indiana bat could occur at the site in summer if trees of suitable structure were available. Summer habitat requirements for this species are not well defined but the following are thought to be of importance:

1. Dead trees and snags along riparian corridors especially those with exfoliating bark or cavities in the trunk or branches which may be used as maternity roost areas.

2. Live trees (such as shagbark hickory) which have exfoliating bark.

3. Stream corridors, riparian areas, and nearby woodlots which provide forage sites.

We recommend that if trees with exfoliating bark (which could be potential roost trees) are encountered in the project area, they and surrounding trees should be saved wherever possible. If they must be cut, they should not be cut between April 15 and September 15.

If desirable trees are present and if the above time restriction is unacceptable, mist net or other surveys should be conducted to determine if bats are present. If a survey is necessary it should be designed and conducted in coordination with the endangered species coordinator for this office, Mr. Buddy Fazio. The survey should be conducted in June or July since the bats would only be expected in the project area from approximately April 15 to September 15.

Two divisions of the Ohio Department of Natural Resources, the Division of Wildlife (DOW, 614-265-6300) and the Division of Natural Areas and Preserves (DNAP, 614-265-6472), maintain lists of plants and animals of concern to the State of Ohio. If you have not already done so, you may wish to contact each of these agencies to obtain site-specific information on species of state concern.

If you have questions or we may be of further assistance in this matter please contact Mr. Bill Kurey of this office at 614-469-6923.

Sincerely,

William J Kurey

William J. Kurey
Acting Supervisor

OHIO Department of Natural Resources

DIVISION OF NATURAL AREAS & PRESERVES
1889 Fountain Square, Columbus, OH 43224
(614) 265-6453; (614) 267-3096 FAX

George V. Voinovich • *Governor*
Donald C. Anderson • *Director*

August 4, 1998

Andrew Ferrell
Gulf Engineers & Consultants
9357 Interline
Baton Rouge, LA 70809

Dear Mr. Ferrell:

After reviewing our Natural Heritage maps and files, I find the Division of Natural Areas and Preserves has no records of rare or endangered species in any of the following three project sites:

1) Kefurt U.S. Army Reserve Center, Youngstown Quad
2) AMSA #72 in Perrysburg, Rossford Quad
3) Toledo U.S. Army Reserve Center, Toledo Quad

There are no existing or proposed state nature preserves or scenic rivers at any of three project sites. We are also unaware of any unique ecological sites, geologic features, breeding or non-breeding animal concentrations, champion trees, or state parks, forests or wildlife areas in the vicinity of any of these three project sites.

Our inventory program has not completely surveyed Ohio and relies on information supplied by many individuals and organizations. Therefore, a lack of records for any particular area is not a statement that rare species or unique features are absent from that area. Please note that although we inventory all types of plant communities, we only maintain records on the highest quality areas. Also, we do not have data for all Ohio wetlands. For additional information on wetlands and National Wetlands Inventory maps, please contact Jim Given in the Division of Real Estate and Land Management at 614-265-6770.

Please contact me at 614-265-6818 if I can be of further assistance.

Sincerely,

Debbie Woischke

Debbie Woischke, Data Specialist
Division of Natural Areas & Preserves

OhioEdison
A FirstEnergy Company

Eastern Region

P. O. Box 570
Youngstown, OH 44501
February 26, 2001

US Army Corps of Engineers
600 Martin Luther King Jr. Place
Louisville, KY 40202
Attn: CELRL-ED-EB (Nora Keel)

Re: Ohio Edison Transformer
399 Miller Street
Youngstown, OH 44507

Dear Nora,

In response to your recent request, the Ohio Edison owned transformer located at 399 Miller Street in Youngstown is a pole mounted unit identified as Company Number N738. This transformer is a 25kVA untested, mineral oil filled unit manufactured by Westinghouse in 1955.

Untested mineral oil filled transformers manufactured before July 1, 1979 are assumed to be contaminated with PCB concentrations between 50 and 500 ppm. Therefore, this transformer must be classified as "PCB contaminated".

Ohio Edison owns and maintains this distribution transformer and would provide proper remediation in compliance with applicable environmental regulations in the event of an oil spill originating from this unit.

If you have any questions, please feel free to call me at 330-740-7635 or 1-888-809-8410, ext. 7635.

Sincerely,

William M. Speece, P. E.

sry

APPENDIX
D

APPENDIX D

PETROLEUM RELEASE DOCUMENTATION

REMOVAL/CLOSURE REPORT

FOR

UNDERGROUND STORAGE TANKS

AT

83RD ARMY RESERVE COMMAND
399 MILLER STREET
YOUNGSTOWN, OHIO 44507

PREPARED BY

MAECORP, INCORPORATED
777 HARRISON DRIVE
COLUMBUS, OHIO 43204

MAECORP Job #: 3079

UNDER

ARMY CORPS OF ENGINEERS
WRIGHT-PATTERSON AREA OFFICE
WPAFB, OHIO 45433-5001
513-255-2977

Contract # DACA27-92-D-0029

Delivery Order #: 0006

TABLE OF CONTENTS

Section 1

Permits

TO: VENDOR

FROM: CITY OF YOUNGSTOWN - LICENSING

Enclosed is your new license. The yellow copy is your receipt showing payment.

The white copy is the license which should be posted for public display.

THANK YOU.

The City of Youngstown

DEPARTMENT OF FINANCE YOUNGSTOWN, OHIO 44503

CITY LICENSE

1992 No 1471

12-1 , 19 92 37500 04 NEW $ 60.00

Name of Business MAECORP INC

Owner of Business MAECORP INC

Address 399 MILLER STREET 44507

Type of License GAS TANK REMOVAL (2)

Received Sum of SIXTY & NO/OO Dollars

LICENSE EXPIRES DECEMBER 31, 1992 ,

PATRICK UNGARO , Mayor GARY KUBIC , Director of Finance

NOTE—This License is not transferable and must be displayed in a conspicuous place, and must be produced on demand of

REMOVAL

UNDERGROUND TANK PERMIT APPLICATION

Instructions: Type or neatly print all requested information. Enclosed applicable fee, as stated in the new regulations for each tank permit. Check or money order shall be made payable to: **City of Youngstown Finance Department; 26 S. Phelps St.; Youngstown, OH 44503.** Application will not be processed without accompanying fee.

I Tank Location:

Company USARC
Address 399 Miller St.
City Youngstown County Mahoning
Phone (216) 788-7058
Contact Person SSG Gus Kefurt

II Owner Information:

Company Same
Address
City Zip 44507
State
Phone ( )

III Local Jurisdiction:

Youngstown Fire Department
Inspection Bureau
1639 Mahoning Ave.
Youngstown, OH 44509

Inspection Bureau phone numbers:
(216) 742-8975
799-4743
799-4803

IV Contractor Information:
(Contractor to notify YFD 48 hours before installation or removal)

Name: MAECORP Inc.
Address: 777 Harrison Dr.
City: Columbus State: OH Zip: 43204
Contact Person Randy Ohlemacher or Scott Evans Phone: (614) 357-1551

V Description of work to be completed:

Removal of 2 1,000 gallon #2 Fuel oil USTs

VI Sketch of facility showing all tanks and piping including existing tanks, piping, distance from lot lines, and distance from any building **MUST** be attached to application to be processed.

THIS PERMIT SHALL BE EFFECTIVE FOR 45 DAYS

-FOR OFFICE USE ONLY-

DATE 12/1/92 INSPECTOR'S DISTRICT FRASIER

SIGNATURE OF ISSUING OFFICER Wm D. Poole

10-90-1080 FM#

Section 2

Reports and Daily Logs

12/1/92

Corps of Engineers - UST Removal
645th Supply Co. - U.S. Army Reserve Center
399 Miller St.
Youngstown, OH. 44507-1591
(214) 788-7058

People present:
Kerry Kennedy - COE
Tony Price - MAECORP
Nathan May - "
Troy Hysell - "
Allen Bridges - "
Randy Ohlemacher - "

Personnel arrived at approx. 8:00 AM EST

Tanks were located. Original scope called for one 1,000 gal. heating oil tank.

Scope Change:
1) 2 USTs located - one near shop bldg. (hereafter designated Tank 1) and one near main bldg offices (hereafter designated Tank 2).
2) Both tanks contain product and are not empty as original scope.

Safety Meeting - held for crew 0830 hrs.
Allen Bridges, Nathan May, Troy Hysell, Randy Ohlemacher - Discussion of safety procedures and plan of action.

go to pg. #3

Notes:

Sample Excavated soil from Tank 1
Determine Dry Ice needs
Arrange for second load of backfill.
Determine need for drums for Sandusky
Arrange hauling of backhold to Sandusky.
Cary Kennedy (H) (513) 675-3215
Tim Hickin - OEPA 644-2080
Ralph Stuart (216) 392-1028 (W)

Grainger 793-9381
Stanbaugh 792-4615
Messer Trucking - 747-1558

- Need soil sample from Tank 1 Stockpile
- Need product samples

EHRT - Christy Music - (513) 752-3950
Geraldine Luna

$\pi R^2 \times L =$ cubic ft.
7.48 g. / ft^3

24' x 8' =

Go to
fee
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sky.

Go to Fire inspection office at 1639 Mahoning Ave. to get permit application (Meet officier Wm. DiPaolo (216)799-4743) Signed application taken to City Hall on Boardman Rd. - Pay $30/tank fee (total $60) to finance dept, and receive (permit #1471) license. MAECORP required to notify fire inspector so she can be present during removal. Lt. Sharyl Frasier pager # 783-8262 (given wrong pager # at first - result 1 hrs. delay)

Special Notes for Tank 1 are a possible gas line running from east side of shop bldg. south to street connect and a water line running on south end of shop bldg. for west to east.

Pump inside shop bldg. and ~~one~~ associated piping disconnected and cut off at floor surface. Piping ~~cut-off~~ outside bldg below grade (Vent, ~~fill~~ fuel & return pipes).
Overburden excavated from tank cavity.
Tank 1 laying east - west. The north and west sides of ~~excavation~~ cavity are excavated.

Sharyl Frasier - Youngstown Fire Inspector arrives on-site at approx. 1100hrs.

Tank 1 contains product which was pumped into 55gal. drums. - 7 drums of product were generated.

- Tank was removed from excavation.
- Visably stained soil was observed on the west end & south side (the fill line was located on the west end. G.W. was observed entering the excavation. No sheen was observed on water.
Soil samples were collected from north, south, east and west walls. A gw. sample was also collected.
The tank was surrond with ~ 40 lbs. dry ice

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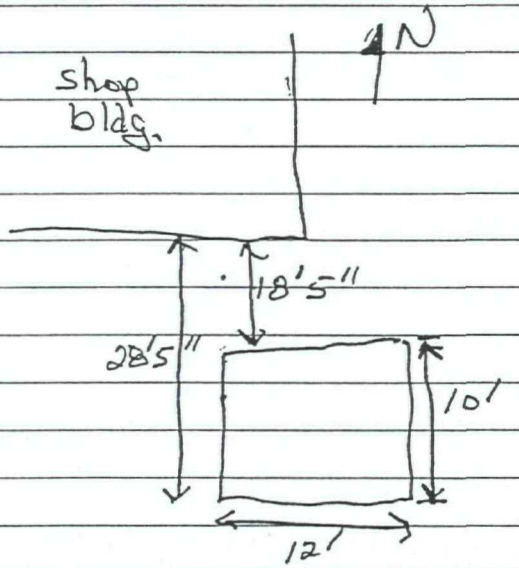
A LEL meter was used to monitor the vapors of the tank after the dry ice had purged the tank. LEL = 6%, O_2 = 19.2%.
The ~~west~~ west end of the tank was cut out and the tank was cleaned w/ pressure washer and the rinseate collected in a drum (used one of previous 7 than was partially full)
A few ~~small~~ small "pin-size" holes were observed and pitting from the backfill on the outside. Contaminated soil was excavated & stockpiled.
The fire inspector (Frasier) was present during removal. The hole was backfilled and top soil placed on top. The site was seeded and straw spread.
backfill = 20 tons
top soil =



grade to water 5'
grade to excavation bottom 5'6"

– Excavation of Tank 2 started.
Excavation secured w/ snow fence.

2 | 12/2/92

Tank 2 -

Drainage pipe running N. to S. on east side of tank and water line running west to east on south end of tank. Excavation of overburden reveals tank much larger than 1,000 gal. West side of tank excavated to bottom and south end. north and east sides uncovered. Fire Inspector Gardner present. Tank appears to be at least a 6,000 gal. and is too large for CAT 426. Arrange for Messer trucking to bring a larger excavator.

Tank 1 Soil Samples field-screen w/ PID. Samples were screened twice - the second time consisted of placing aluminum foil over the sample jar mouth & then the lid was replaced. The samples were placed near steam heat lines to allow for volatization to occur. The PID tip was punched through the foil and readings taken. The instrument was cleared between each sample.

SAMPLE ID	Initial Reading (PPM)	1st Reading (PPM)
North wall	0.0	6.4
East wall	1.6	11.0
West wall	0.0	0.0
Pipe trench	0.0	0.0
South wall	2.7	12.7

The South wall sample, gw. sample and stockpiled soil sample will be submitted to lab.

12/2/92 6:33 PM	Call M. Kerry Kennedy – update on Tank 2 and spilled oil.	12/2/92	Tan T eas We Ex mu We and Fir to lar tru Tan w/ the foil was stea occ the clea SA N Ea W P S The

Tank 2 was pumped of remaining product in the tank. 38 drums of product was removed from the tank. The tank was completely uncovered and excavation to the bottom of the tank was completed on the west side. Unable to excavate to the bottom on the south side because of 4" water line, on east side a drain line and on north side because of overhead power lines. However, the tank is completely uncovered. A chain is wrapped around the manway and the tank is slowly lifted. The tank is leaking product. Immediately set tank back down in cavity. Appears there may be a hole in the bottom of the tank. The tank is lifted slightly so that remaining product flows to one end. Set-up pump and pump 2 drums of product - no more product can be removed. Lift tank from cavity and place on visqueen. Some residual product spilled in excavation. The spilled heating fuel was contained in the bottom of the excavation by a tight clay. A pump was used to immediately pump the product into drums. Approx. 90 gal. of product was removed. Excavation left open for night. Snow fence was set-up around excavation.

12/3/92 07

12/3/92
08[illegible]hrs. – Call made to Tony Price to give update

0945 hrs. –

12/3/92	07:30 Hrs. - Arrive site Nate May, Allen Bridges, Randy Ohlemacher Jim Witt - arrived 0800 Hrs. Safety Meeting / Discussion of activities. - Tank 2 Excavation has filled w/ 6"-8" g.w. and has 1/8" or less sheen on water. - Pump needs to be thawed & flushed. - Dry Ice (60lbs) added to tank 2 & allowed to purge vapors. - LEL turned on & fresh air set-up initiated (0% LEL, 20.8% O_2) Readings taken on North end of tank bottom, middle & top - all readings the same = 0% LEL, 20.6% O_2. Readings from south end of tank bottom 0% LEL, 20.5% O_2; middle & top 3% LEL, 20.5% O_2. - Tank cleared for cuttings - - Tank outside pressure wash on ends & top. - Attempt to cut south end by manway - mastic coating to thick. Manway opened. - Outside of tank completely cleaned. - Pictures #142 ~~table~~ taken of excavation showing oil sheen and of absorbant pig under hole in tank.
0945 hrs.	- Call made to Tim Hiskin - DEPA ER. regarding release of heating oil from Tank 2 into excavation

OEPA Teleconf. (cont.)
No mention made of site location.
Describe. VST, quantity released (approx. 90gal) into tank cavity, oil was pumped into 2 drums, g.w. 12/3/92 AM had 1/4" sheen).
R.Q. on heating oil is sheen into waters of the state - g.w. is not included as waters of state and therefore no release notification is required, however ~~Tim~~ recommended reporting because if fuel oil were found in g.w. of a well or ~~to~~ a report made and traced back to the site action could be taken (enforcement). No action would be taken if a report was made.

1000 hrs. ~~Attempt~~ to repair sewer (12" line) - remove soil from top of line and reenforce under line. - unable to move into position.
New plan -.
Need equip.:
Excavator (min. 200)
Safety Harness & rope
Barricade
~~S~~ Fence posts.
12" sewer line

10 ..rs. Call office & leave message for Tony Price to call me @ site ASAP. Left message w/ Scott Evans & Cindy.

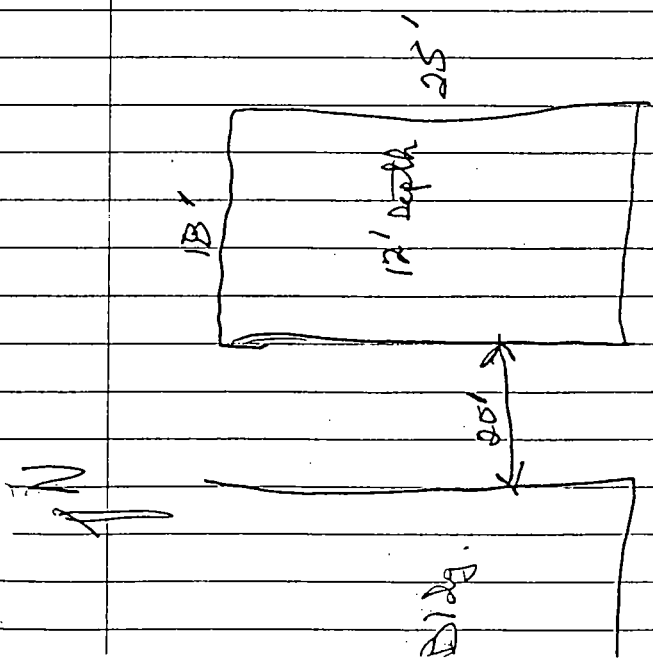
Kerry Kennedy - Dayton Corps (513)255-2977

1415 hrs. Call from Tony Price -
Asked Tony to call via Scott Evan @ 1000 hrs.

1420 hrs. Kerry Kennedy - Authorizes backfill as is.
Kerry talks to Ralph Stuart and says same thing.

Ralph leaves 1530 hrs.

Talk to Kerry Kennedy about new plan of backfill as is after collecting bottom sample and side sample. Backfill to level of drain pipe and repair drain pipe.



12/4/92 Arrive Site 0715 hrs.
Jim Witt, Alken Bridges, Nate May, Randy Chlemacher

- Compaction of backfill in excavation (½ full) is completed by using the bucket of the backhoe.
- Tank 1 Stockpiled soil sample is collected.
- Product, return, and vent lines are cut at outside of bldg. below grade & removed.
- Awaiting arrival of sewer pipe from Messer
- Sewer arrived 0830 hrs.
  Installation started.

Backfill

No.	Date	Tons
34946	12/2	30.08 T.
34904	12/2	29.7
34952	12/3	30.15
34970	12/3	30.41
		120.34 Tons delivered

Ordered 80 tons

0945 hrs. Sewer line installed – picturer taken (20' section).

Old tanks removed from site to scrap yard–
Messer trucking will send letter from scrap yard.

Tank 2 Field Screening (after warming w/foil)

Sample	Reading
Bottom	0.0
Bottom 2	178.5
Bottom 3	53.7
East Wall	0.0
West "	0.1
South "	0.0
North "	0.0

Submit North end sample because it is closer to where holes were in tank. Submit bottom 2 sample.

All overburden (stockpiled soil) returned to excavation.

No ~~water~~ g.w. encountered, water previously found in excavation was from drain pipe since it snowed the previous night.

Hole was backfilled to top, seeded and straw applied.

R.O. leaves site 1200 hrs.
Crew leaves approx. 1530 hrs.

JOB# 2014

ALLEN. B NATHAN. M

13:00 MOBE TO SIGHT

14:00 ARRIVE AT SIGHT

COVER PILE WITH TO LAYERS OF 6 MIL POLY

AND WAIGHT POLY DOWN

15:00 DONE WITH PILE

15:05 DEMOBE FROM SIGHT

16:05 BACK HOME

JOB# 3079

DATE: 12/22/92

0830 - mobe to youngstown
1100 - Arrive at site
1105 - Take samples with shovel. Took From one foot deep. From three different locations and mixed together.
1120 - done with sampling
1130 - demobe from youngstown
1400 - back on site at newcomerstown

JM WIT

2/3/92 3079 Youngstown
D.S.

0700 On site to get Jeff off to Canton (Newcomerstown)

0730 Crew on site & reviewed what was to be done.

0910 Called to see where Top soil, did not get through until ≅ 1015. It was on its way. They would take the backfill but need to deal w/ the trucker.

1030 Grading of backfill and clean up caught up.

Top soil delivered. Trucker will take leftover backfill - 2 loads $70 w/ 2.5 hr. Turn.

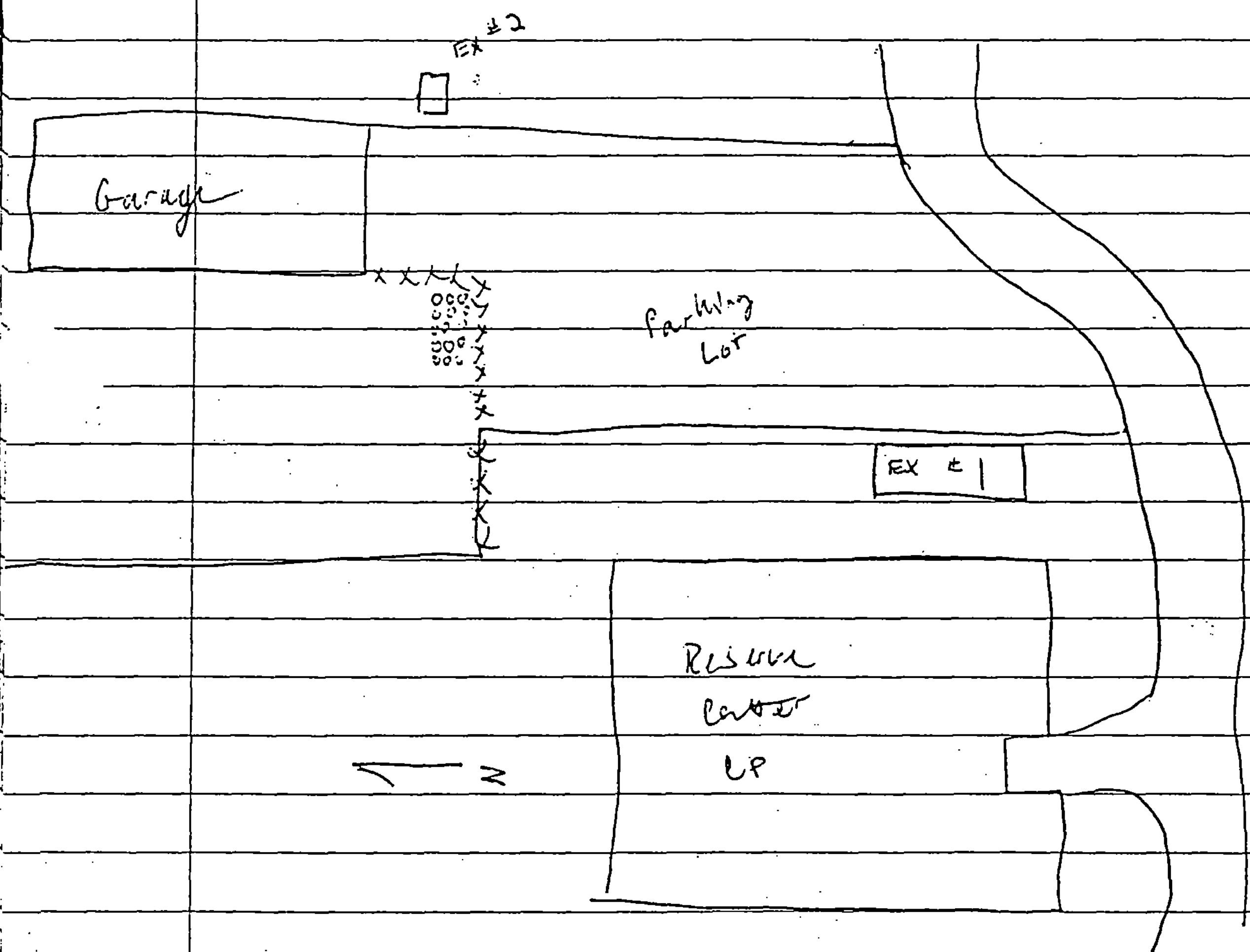
1500 Off-site. Swept entire area. Power washed area by large tank in parking lot. Coatings starting to come off so we did not continue.

Crew to Columbus & I proceeded to Canton - In Canton ≅ 1730.

0800 On site J. Haines, S. Whitt, T. Hyatt
Ulliman, 2 ton Flat@Winston trailer, CAT
426 backhoe @ allied vibatory plate
Tasks to accomplish
① Dig Excavation 8' wide x 14' x 4' deep
② Vibatory compact in 6" to 8" Lifts
back to grade
③ Load contaminated soil on waste
Management truck
④ Dig excavation 4' wide x 6' x 4' deep
⑤ Vibatory compact in 6" to 8" lifts
up to grade.
Reviewed site safety plan with crew
began excavation of Task #1 at 0815
0900 GTC Inspector/Hester on site. Begin compacting
bottom of excavation with hoe PSC water began
immediately seeping/bubbling up through the bottom
of the excavation. Switched back over to the
bucket and excavated down to 5' on the south
end of the excavation ground water level is at
4.5' in this area. Heavy water migration to
the previous sand backfill used in the
excavation is evident. Moisture density of
the soil/sand taken out of the excavation
is 20%. Called Scott Evans at shop to
arrange for stone back fill. Found 304
slag from Arco Coal to use for backfill.
Note that it is not steel slag and that the
slag is air cooled.
1100 Waste Management (Brown Trucking) arrived on site
to haul contaminated soil away. Driver stated
that 2 trucks were enroute. I explained
that one only had enough soil for 1 truck

Young [illegible]

1500 Received 32 ton of #57 stone on site from ACME Coal ~~brought so~~ filled excavation #1 (Large excavation) up to 6" below grade in 1 Foot LiFts settling the stone with a hoe ram. Put 6"s of soil on top of ~~the~~ stone and having CTC test. In excavation # 2 (Small ex.) ~~brought stone~~ filled with stone up to grade in 1 Ft LiFts settling stone with hoe ram



Soil passed Nuc dens test with a 97% compaction a ~~the~~ Standard scale 90% modified. Rick Hamilton was the CTC soil inspector

1800 Backfilling complete secured site.

[signature]

Job
1300 Arriv
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Section 3

Waste Manifests and Disposal Records

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest Document No.

2. Page 1 of 1

3. Generator's Name and Mailing Address
U.S. Corp. of Eng., Army Reserve Center
399 Miller St. Youngstown, Ohio 44507

P.O. # 300322
Maecorp Job # 3079
COE Delivery order 0006

4. Generator's Phone (216) 788-7058

5. Transporter 1 Company Name
Berner Trucking, Inc.

6. US EPA ID Number
OHD049371693

7. Transporter 2 Company Name

8. US EPA ID Number

9. Designated Facility Name and Site Address
Countywide RDF
3669 Gracemont SW
East Sparta, Ohio 44626

10. US EPA ID Number

A. Transporter's Phone (216)343-5812
B. Transporter's Phone
C. Facility's Phone (216)874-3855

11. Waste Shipping Name and Description	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol
a. Petroleum contaminated soil	1	DT	~~25~~	yd
b.				
c.				

GENERATOR

D. Additional Descriptions for Materials Listed Above
Profile # 141251

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name: Jeff Haines
Signature: Jeff Haines
Month Day Year: 10 2 93

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name:
Signature: C. Wadkins
Month Day Year: 11 2 93

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name:
Signature:
Month Day Year:

FACILITY

19. Discrepancy Indication Space

Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in Item 19.

Printed/Typed Name:
Signature:
Month Day Year:

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. | Manifest Document No. | 2. Page 1 of 1

Generator's Name and Mailing Address
U.S. Corp. of Eng., Army Reserve Center
399 Miller St. Youngstown, Ohio 44507
4. Generator's Phone (216)788-7058

P.O. # 300322
Maecorp Job # 3079
COE Delivery order 0006

5. Transporter 1 Company Name: Berner Trucking, Inc.
6. US EPA ID Number: OHD049371693

7. Transporter 2 Company Name
8. US EPA ID Number

9. Designated Facility Name and Site Address
Countywide RDF
3669 Gracemont SW
East Sparta, Ohio 44626
10. US EPA ID Number

A. Transporter's Phone (216)343-5812
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a. Petroleum contaminated soil	1	DT	25	yd
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d.				

GENERATOR

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Profile # 141251

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15. Special Handling Instructions and Additional Information

16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name	Signature	Month	Day	Year
Jeff Haines	Jeff Haines	10	02	93

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
	C. Wax Rivis	2	2	93

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

19. Discrepancy Indication Space

FACILITY

Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in Item 19.
Countywide RDF

Printed/Typed Name	Signature	Month	Day	Year
Tina Manges	Tina L Manges	02	02	93

THIS MEMORANDUM

: an acknowledgement that a bill of lading has been issued and is not the Original Bill of Lading, nor copy or duplicate, covering the property named herein, and is intended solely for filing or record.

Shipper's No. MC004

CARRIER: Hazardous Materials Service SCAC Carrier's No. Date 3/25/93

TO:
Consignee Hazardous Materials Service
Street 1435 Symmes Rd
Destination Fairfield, Oh Zip 45014

FROM:
Shipper US ARMY Reserve (Macomb)
Street
Origin Youngstown, Oh Zip

Route: Vehicle Number

No. Shipping Units	HM	Kind of Packages, Description of Articles (IF HAZARDOUS MATERIALS - PROPER SHIPPING NAME)	HAZARD CLASS	I.D. Number	PACKING GROUP	WEIGHT (subject to correction)	RATE	LABELS REQUIRED (or exemption)
10		Fuel/Sludge/Water	NOHF		DM			
		55 gallon Open Head						

Remit C.O.D. to:
Address:
City: State: Zip:

C.O.D. Amt: $

C. O. D. FEE: Prepaid ☐ Collect ☐ $

FREIGHT CHARGES ☐ PREPAID ☐ COLLECT

NOTE - Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property. The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding $ Per

Subject to Section 7 of the conditions, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:
The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.
(Signature of Consignor)

Where the applicable tariff provisions specify a limitation of the carrier's liability NMFC Item 172), if there is no release or value declaration by the shipper, and the shipper does not declare a value or release the carrier's liability, that liability shall be limited to the extent provided by NMFC Item 172. California intrastate shipments must comply with NMFC Item 173.

RECEIVED, subject to the classifications and lawfully filed tariffs in effect on the date of issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as indicated above which said carrier (the word carrier being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of, said property over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the bill of lading terms and conditions in the governing classification on the date of shipment.
Shipper hereby certifies that he is familiar with all the bill of lading terms and conditions in the governing classification and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns.

This is to certify that the above-named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.
Per

PLACARDS REQUIRED: NONE

PLACARDS SUPPLIED: ☐ YES ☐ NO - FURNISHED BY CARRIER
DRIVERS SIGNATURE:

SHIPPER: US ARMY Reserve (Macomb)
PER: DATE: 25 Mar 93

CARRIER: H.M.S.
PER: DATE: 3/25/93

EMERGENCY RESPONSE TELEPHONE NUMBER: ( )

Monitored at all times the Hazardous Material is in transportation including storage incidental to transportation (172.604).

-BLS-B4 (REV. 3/92)

MAECORP, INCORPORATED
777 Harrison Drive
Columbus, Ohio 43204
OFFICE (614) 351-1551
FAX: (614) 351-1556

PLEASE BE ADVISED THAT WE:

COMPANY NAME: Messier Trucking

ADDRESS: _____

CITY, STATE ZIP: _____

PHONE NUMBER: 216-747-1558

HAVE RECEIVED AND CORRECTLY DISPOSED OF THE FOLLOWING UNDERGROUND STORAGE TANKS (UST):

SIZE (GAL)	DATE	FROM
2EA.-1000 gal	12-14-92	Youngstown, Ohio

SIGNATURE _____ DATE _____

REVISED 11/91

CUSTOMER DETAIL
Report for: 02/

Date	Ticket	Cust. #	Customer Name	Truck #	Type	Yards	Gross	Tare	N[redacted]
02/01/93	44757	1004	US ARMY CORP- LOUISV	155	0	25.00	37.87	16.57	[redacted]
TOTALS	1					25.00	37.87	16.57	21.30

Average Tons Per Load: 21.30

IDAY

OLUME REPORT
1/93 THROUGH 02/01/93

Amount	Commodities								ID	Cash
	1	2	3	4	5	6	7	8		
456.88	CS18.50	SO	DO	HO					KKP	
456.88								CASH TENDERED $		0.00

Section 4

Analytical Results and Chains-of-Custody

PAH ANALYSIS DATA SHEET
(EPA Method 8270 PAH)

SAMPLE NO.
1 South Side

Lab Name: Environmental Health Research & Testing, Inc.

Contract: MAECORP INCORPORATED Customer Proj. #: 3079

Source: U.S. Army Reserve Center, 645th (Tank 1 - South Wall of Cavity)

Matrix: (soil/water) Soil Sample EHRT Sample I.D.: 15960-001

Lab Notebook:	310, Pg. 63	Date Sampled:	12-01-92
Sample Weight:	10.0 (g)	Date Received:	12-07-92
Conc. Extract Vol.:	1.0 (mL)	Date Extracted:	12-07-92
Injection Volume:	1.0 (uL)	Date Analyzed:	12-10-92
pH: 6.0	Percent Solid: 100	Dilution Factor:	1

	CAS NO.	COMPOUND	Detection Limits (ug/kg)	RESULTS	FLAG
1.	83-32-9	Acenaphthene	500	U	
2.	208-96-8	Acenaphthylene	500	U	
3.	120-12-7	Anthracene	500	U	
4.	56-55-3	Benzo(a)anthracene	500	U	
5.	50-32-8	Benzo(a)pyrene	1000	U	
6.	205-99-2	Benzo(b)fluoranthene	2000	U	
7.	191-24-2	Benzo(g,h,i)perylene	2000	U	
8.	207-08-9	Benzo(k)fluoranthene	2000	U	
9.	218-01-9	Chrysene	500	U	
10.	53-70-3	Dibenz(a,h)anthracene	2000	U	
11.	206-44-0	Fluoranthene	500	U	
12.	86-73-7	Fluorene	500	U	
13.	193-39-5	Indeno(1,2,3-cd)pyrene	2000	U	
14.	91-20-3	Naphthalene	300	U	
15.	85-01-8	Phenanthrene	500	U	
16.	129-00-0	Pyrene	300	U	

	Surrogate Standard	Recovery (%)	Acceptable	Spike (ug/kg)
17.	Nitrobenzene-d5	53	23-120	100
18.	2-Fluorobiphenyl	51	30-115	100
19.	Terphenyl-d14	73	18-131	100

U: Below Detection Limit

PAH ANALYSIS DATA SHEET
(EPA Method 8270 PAH)

SAMPLE NO.
1 GW

Lab Name: Environmental Health Research & Testing, Inc.

Contract: MAECORP INCORPORATED **Customer Proj. #:** 3079

Source: U.S. Army Reserve Center, 645th (Tank 1 - Groundwater from Cavity)

Matrix: (soil/water) Water Sample EHRT Sample I.D.: 15960-002

Lab Notebook:	310, Pg. 59	Date Sampled:	12-01-92
Sample Volume:	500.0 (mL)	Date Received:	12-07-92
Conc. Extract Vol.:	1.0 (mL)	Date Extracted:	12-07-92
Injection Volume:	1.0 (uL)	Date Analyzed:	12-09-92
pH: 7.0	Percent Solid: N/A	Dilution Factor:	1

	CAS NO.	COMPOUND	Detection Limits (ug/L)	RESULTS	FLAG
1.	83-32-9	Acenaphthene	4.0	13.9	
2.	208-96-8	Acenaphthylene	4.0	U	
3.	120-12-7	Anthracene	4.0	5.7	
4.	56-55-3	Benzo(a)anthracene	6.0	U	
5.	50-32-8	Benzo(a)pyrene	12.0	U	
6.	205-99-2	Benzo(b)fluoranthene	20.0	U	
7.	191-24-2	Benzo(g,h,i)perylene	20.0	U	
8.	207-08-9	Benzo(k)fluoranthene	20.0	U	
9.	218-01-9	Chrysene	6.0	U	
10.	53-70-3	Dibenz(a,h)anthracene	20.0	U	
11.	206-44-0	Fluoranthene	4.0	8.6	
12.	86-73-7	Fluorene	6.0	12.5	
13.	193-39-5	Indeno(1,2,3-cd)pyrene	20.0	U	
14.	91-20-3	Naphthalene	2.0	16.3	
15.	85-01-8	Phenanthrene	4.0	24.9	
16.	129-00-0	Pyrene	4.0	7.8	

	Surrogate Standard	Recovery (%)	Acceptable	Spike (ug/L)
17.	Nitrobenzene-d5	63	35-114	100
18.	2-Fluorobiphenyl	72	43-116	100
19.	Terphenyl-d14	64	33-141	100

U: Below Detection Limit

PAH ANALYSIS DATA SHEET
(EPA Method 8270 PAH)

SAMPLE NO.
2 Bottom

Lab Name: Environmental Health Research & Testing, Inc.

Contract: MAECORP INCORPORATED Customer Proj. #: 3079

Source: U.S. Army Reserve Center, 645th (Tank 2 - Excavation Bottom)

Matrix: (soil/water) Soil Sample EHRT Sample I.D.: 15960-004A

Lab Notebook:	310, Pg. 63	Date Sampled:	12-03-92
Sample Weight:	10.0 (g)	Date Received:	12-07-92
Conc. Extract Vol.:	1.0 (mL)	Date Extracted:	12-07-92
Injection Volume:	1.0 (uL)	Date Analyzed:	12-10-92
pH: 5.0	Percent Solid: 100	Dilution Factor:	1

	CAS NO.	COMPOUND	Detection Limits (ug/kg)	RESULTS	FLAG
1.	83-32-9	Acenaphthene	500	5510	
2.	208-96-8	Acenaphthylene	500	1880	
3.	120-12-7	Anthracene	500	2560	
4.	56-55-3	Benzo(a)anthracene	500	791	
5.	50-32-8	Benzo(a)pyrene	1000	U	
6.	205-99-2	Benzo(b)fluoranthene	2000	U	
7.	191-24-2	Benzo(g,h,i)perylene	2000	U	
8.	207-08-9	Benzo(k)fluoranthene	2000	U	
9.	218-01-9	Chrysene	500	1040	
10.	53-70-3	Dibenz(a,h)anthracene	2000	U	
11.	206-44-0	Fluoranthene	500	1790	
12.	86-73-7	Fluorene	500	2990	
13.	193-39-5	Indeno(1,2,3-cd)pyrene	2000	U	
14.	91-20-3	Naphthalene	300	19800	
15.	85-01-8	Phenanthrene	500	27600	
16.	129-00-0	Pyrene	300	2320	

	Surrogate Standard	Recovery (%)	Acceptable	Spike (ug/kg)
17.	Nitrobenzene-d5	42	23-120	100
18.	2-Fluorobiphenyl	37	30-115	100
19.	Terphenyl-d14	42	18-131	100

U: Below Detection Limit

PAH ANALYSIS DATA SHEET
(EPA Method 8270 PAH)

SAMPLE NO.: 2 Bottom

Lab Name: Environmental Health Research & Testing, Inc.

Contract: MAECORP INCORPORATED **Customer Proj. #:** 3079

Source: U.S. Army Reserve Center, 645th (Tank 2 - Excavation Bottom)

Matrix: (soil/water) Soil Duplicate EHRT Sample I.D.: 15960-004B

Lab Notebook:	310, Pg. 69	Date Sampled:	12-03-92
Sample Weight:	10.0 (g)	Date Received:	12-07-92
Conc. Extract Vol.:	1.0 (mL)	Date Extracted:	12-11-92
Injection Volume:	1.0 (uL)	Date Analyzed:	12-18-92
pH: 5.0	Percent Solid: 100	Dilution Factor:	1

	CAS NO.	COMPOUND	Detection Limits (ug/kg)	RESULTS	FLAG
1.	83-32-9	Acenaphthene	500	11400	
2.	208-96-8	Acenaphthylene	500	2290	
3.	120-12-7	Anthracene	500	13000	
4.	56-55-3	Benzo(a)anthracene	500	1210	
5.	50-32-8	Benzo(a)pyrene	1000	551	
6.	205-99-2	Benzo(b)fluoranthene	2000	U	
7.	191-24-2	Benzo(g,h,i)perylene	2000	U	
8.	207-08-9	Benzo(k)fluoranthene	2000	U	
9.	218-01-9	Chrysene	500	1840	
10.	53-70-3	Dibenz(a,h)anthracene	2000	U	
11.	206-44-0	Fluoranthene	500	602	
12.	86-73-7	Fluorene	500	5680	
13.	193-39-5	Indeno(1,2,3-cd)pyrene	2000	U	
14.	91-20-3	Naphthalene	300	35500	
15.	85-01-8	Phenanthrene	500	72600	
16.	129-00-0	Pyrene	300	4080	

	Surrogate Standard	Recovery (%)	Acceptable	Spike (ug/kg)
17.	Nitrobenzene-d5	100	23-120	100
18.	2-Fluorobiphenyl	86	30-115	100
19.	Terphenyl-d14	115	18-131	100

U: Below Detection Limit

PAH ANALYSIS DATA SHEET
(EPA Method 8270 PAH)

SAMPLE NO.
2 Northwall

Lab Name: Environmental Health Research & Testing, Inc.

Contract: MAECORP INCORPORATED **Customer Proj. #:** 3079

Source: U.S. Army Reserve Center, 645th (Tank 2 - Northwall of Cavity)

Matrix: (soil/water) Soil Sample EHRT Sample I.D.: 15960-005A

Lab Notebook:	310; Pg. 63	Date Sampled:	12-03-92
Sample Weight:	10.0 (g)	Date Received:	12-07-92
Conc. Extract Vol.:	1.0 (mL)	Date Extracted:	12-07-92
Injection Volume:	1.0 (uL)	Date Analyzed:	12-10-92
pH: 5.0	Percent Solid: 100	Dilution Factor:	1

	CAS NO.	COMPOUND	Detection Limits (ug/kg)	RESULTS	FLAG
1.	83-32-9	Acenaphthene	500	U	
2.	208-96-8	Acenaphthylene	500	U	
3.	120-12-7	Anthracene	500	U	
4.	56-55-3	Benzo(a)anthracene	500	U	
5.	50-32-8	Benzo(a)pyrene	1000	U	
6.	205-99-2	Benzo(b)fluoranthene	2000	U	
7.	191-24-2	Benzo(g,h,i)perylene	2000	U	
8.	207-08-9	Benzo(k)fluoranthene	2000	U	
9.	218-01-9	Chrysene	500	U	
10.	53-70-3	Dibenz(a,h)anthracene	2000	U	
11.	206-44-0	Fluoranthene	500	U	
12.	86-73-7	Fluorene	500	U	
13.	193-39-5	Indeno(1,2,3-cd)pyrene	2000	U	
14.	91-20-3	Naphthalene	300	U	
15.	85-01-8	Phenanthrene	500	U	
16.	129-00-0	Pyrene	300	U	

	Surrogate Standard	Recovery (%)	Acceptable	Spike (ug/kg)
17.	Nitrobenzene-d5	58	23-120	100
18.	2-Fluorobiphenyl	56	30-115	100
19.	Terphenyl-d14	82	18-131	100

U: Below Detection Limit

PAH ANALYSIS DATA SHEET
(EPA Method 8270 PAH)

SAMPLE NO.
2 Northwall

Lab Name: Environmental Health Research & Testing, Inc.

Contract: MAECORP INCORPORATED **Customer Proj. #:** 3079

Source: U.S. Army Reserve Center, 645th (Tank 2 - Northwall of Cavity)

Matrix: (soil/water) Soil Duplicate EHRT Sample I.D.: 15960-005B

Lab Notebook:	310, Pg. 63	Date Sampled:	12-03-92
Sample Weight:	10.0 (g)	Date Received:	12-07-92
Conc. Extract Vol.:	1.0 (mL)	Date Extracted:	12-07-92
Injection Volume:	1.0 (uL)	Date Analyzed:	12-10-92
pH: 5.0	Percent Solid: 100	Dilution Factor:	1

	CAS NO.	COMPOUND	Detection Limits (ug/kg)	RESULTS	FLAG
1.	83-32-9	Acenaphthene	500	U	
2.	208-96-8	Acenaphthylene	500	U	
3.	120-12-7	Anthracene	500	U	
4.	56-55-3	Benzo(a)anthracene	500	U	
5.	50-32-8	Benzo(a)pyrene	1000	U	
6.	205-99-2	Benzo(b)fluoranthene	2000	U	
7.	191-24-2	Benzo(g,h,i)perylene	2000	U	
8.	207-08-9	Benzo(k)fluoranthene	2000	U	
9.	218-01-9	Chrysene	500	U	
10.	53-70-3	Dibenz(a,h)anthracene	2000	U	
11.	206-44-0	Fluoranthene	500	U	
12.	86-73-7	Fluorene	500	U	
13.	193-39-5	Indeno(1,2,3-cd)pyrene	2000	U	
14.	91-20-3	Naphthalene	300	U	
15.	85-01-8	Phenanthrene	500	U	
16.	129-00-0	Pyrene	300	U	

	Surrogate Standard	Recovery (%)	Acceptable	Spike (ug/kg)
17.	Nitrobenzene-d5	57	23-120	100
18.	2-Fluorobiphenyl	52	30-115	100
19.	Terphenyl-d14	86	18-131	100

U: Below Detection Limit

ENVIRONMENTAL HEALTH RESEARCH AND TESTING, INC.

BETX ORGANICS ANALYSIS

CUSTOMER NAME:	MAECORP INCORPORATED		
SAMPLE SOURCE:	U.S. Army Reserve Center, 645th - Proj. No. 3079		
SAMPLE TYPE:	Water Blank	DATE ANALYZED:	12-10-92
CUSTOMER SAMPLE NO.:	N/A	EHRT SAMPLE NO.:	N/A
LAB NOTEBOOK NO.:	266, Pg. 66	METHOD NO.:	EPA 8020

	COMPOUNDS		RESULT ug/L
1.	Benzene	<	3.0
2.	Ethylbenzene	<	3.0
3.	Toluene	<	3.0
4.	Xylene	<	3.0

SURROGATE STANDARD - % RECOVERY

Bromofluorobenzene - 105%

ENVIRONMENTAL HEALTH RESEARCH AND TESTING, INC.

BETX ORGANICS ANALYSIS

CUSTOMER NAME:	MAECORP INCORPORATED		
SAMPLE SOURCE:	U.S. Army Reserve Center, 645th - Proj. No. 3079		
SAMPLE TYPE:	Soil Blank	DATE ANALYZED:	12-10-92
CUSTOMER SAMPLE NO.:	N/A	EHRT SAMPLE NO.:	N/A
LAB NOTEBOOK NO.:	266, Pg. 66	METHOD NO.:	EPA 8020

	COMPOUNDS	RESULT ug/kg
1.	Benzene	< 3.0
2.	Ethylbenzene	< 3.0
3.	Toluene	< 3.0
4.	Xylene	< 3.0

SURROGATE STANDARD - % RECOVERY

Bromofluorobenzene	-	98%

ENVIRONMENTAL HEALTH RESEARCH AND TESTING, INC.

BETX ORGANICS ANALYSIS

CUSTOMER NAME:	MAECORP INCORPORATED		
SAMPLE SOURCE:	U.S. Army Reserve Center, 645th - Proj. No. 3079		
SAMPLE DESCRIPTION:	Tank 2 - North Wall of Cavity		
SAMPLE TYPE:	Soil Sample	DATE ANALYZED:	12-10-92
CUSTOMER SAMPLE NO.:	2 North Wall	EHRT SAMPLE NO.:	15960-005
LAB NOTEBOOK NO.:	266, Pg. 66	METHOD NO.:	EPA 8020

	COMPOUNDS	RESULT ug/kg
1.	Benzene	< 3.0
2.	Ethylbenzene	< 3.0
3.	Toluene	< 3.0
4.	Xylene	< 3.0

SURROGATE STANDARD - % RECOVERY

Bromofluorobenzene - 96%

ENVIRONMENTAL HEALTH RESEARCH AND TESTING, INC.

BETX ORGANICS ANALYSIS

CUSTOMER NAME:	MAECORP INCORPORATED		
SAMPLE SOURCE:	U.S. Army Reserve Center, 645th - Proj. No. 3079		
SAMPLE DESCRIPTION:	Tank 2 - Excavation Bottom		
SAMPLE TYPE:	Soil Duplicate	DATE ANALYZED:	12-10-92
CUSTOMER SAMPLE NO.:	2 Bottom	EHRT SAMPLE NO.:	15960-004B
LAB NOTEBOOK NO.:	266, Pg. 67	METHOD NO.:	EPA 8020

	COMPOUNDS	RESULT ug/kg
1.	Benzene	< 1880
2.	Ethylbenzene	5470
3.	Toluene	9930
4.	Xylene	40200

SURROGATE STANDARD - % RECOVERY

Bromofluorobenzene - 90%

ENVIRONMENTAL HEALTH RESEARCH AND TESTING, INC.

BETX ORGANICS ANALYSIS

CUSTOMER NAME:	MAECORP INCORPORATED		
SAMPLE SOURCE:	U.S. Army Reserve Center, 645th - Proj. No. 3079		
SAMPLE DESCRIPTION:	Tank 2 - Excavation Bottom		
SAMPLE TYPE:	Soil Sample	DATE ANALYZED:	12-10-92
CUSTOMER SAMPLE NO.:	2 Bottom	EHRT SAMPLE NO.:	15960-004A
LAB NOTEBOOK NO.:	266, Pg. 66	METHOD NO.:	EPA 8020

	COMPOUNDS	RESULT ug/kg
1.	Benzene	< 1880
2.	Ethylbenzene	5300
3.	Toluene	6480
4.	Xylene	31900

SURROGATE STANDARD - % RECOVERY

Bromofluorobenzene - 84%

ENVIRONMENTAL HEALTH RESEARCH AND TESTING, INC.

BETX ORGANICS ANALYSIS

CUSTOMER NAME:	MAECORP INCORPORATED		
SAMPLE SOURCE:	U.S. Army Reserve Center, 645th - Proj. No. 3079		
SAMPLE DESCRIPTION:	Tank 1 - Groundwater From Cavity		
SAMPLE TYPE:	Water Sample	DATE ANALYZED:	12-10-92
CUSTOMER SAMPLE NO.:	1 GW	EHRT SAMPLE NO.:	15960-002
LAB NOTEBOOK NO.:	266, Pg. 67	METHOD NO.:	EPA 8020

	COMPOUNDS	RESULT ug/L	
1.	Benzene	<	3.0
2.	Ethylbenzene	<	3.0
3.	Toluene	<	3.0
4.	Xylene	<	3.0

SURROGATE STANDARD - % RECOVERY

Bromofluorobenzene	-	102%

ENVIRONMENTAL HEALTH RESEARCH AND TESTING, INC.

BETX ORGANICS ANALYSIS

CUSTOMER NAME:	MAECORP INCORPORATED		
SAMPLE SOURCE:	U.S. Army Reserve Center, 645th - Proj. No. 3079		
SAMPLE DESCRIPTION:	Tank 1 - South Wall of Cavity		
SAMPLE TYPE:	Soil Sample	DATE ANALYZED:	12-10-92
CUSTOMER SAMPLE NO.:	1 South Side	EHRT SAMPLE NO.:	15960-001
LAB NOTEBOOK NO.:	266, Pg. 67	METHOD NO.:	EPA 8020

	COMPOUNDS	RESULT ug/kg	
1.	Benzene	<	3.0
2.	Ethylbenzene	<	3.0
3.	Toluene	<	3.0
4.	Xylene	<	3.0

SURROGATE STANDARD - % RECOVERY

Bromofluorobenzene	-	92%

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:RU,PS,20R
reg' type  # pts  scan#   range: amu\r.t.    base     file   ion range
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 X    MS    281    623    37.10-  444.30  43168.1  >DFT10
:r^ 5,5,+,1
:     ',LE,10,-5
:,  ,*DFTP'
:***DFTP' FROM HP TO YOUR LIVING ROOM
:CA,1:P,5
:RU,TUNER,=DFTPP
```

GC/MS PERFORMANCE STANDARD

Decafluorotriphenylphospine (DFTPP)

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	% Relative Abundance Appropriate Peak	Status
51	30-60% of mass 198	56.76	56.76	Ok
68	Less than 2% of mass 69	0.00	0.00	Ok
69	(reference only)	66.72	66.72	Ok
70	Less than 2% of mass 69	.38	.57	Ok
127	40-60% of mass 198	51.70	51.70	Ok
197	Less than 1% of mass 198	.48	.48	Ok
198	Base peak, 100% relative abundance	100.00	100.00	Ok
199	5-9% of mass 198	7.32	7.32	Ok
275	10-30% of mass 198	20.17	20.17	Ok
[illegible]	Greater than 1% of mass 198	2.01	2.01	Ok
1	0-100% of mass 443	7.65	73.33	Ok
442	Greater than 40% of mass 198	57.52	57.52	Ok
443	17-23% of mass 442	10.43	18.13	Ok

Injection Date: 12/10/92
Injection Time: 07:10
Data File: >DFT10
Scan: 623

GC/MS #1
2824A11156
12/10/92

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IF,0,EQ,1,2
DP,THIS IS A VALID SPECTRUM
HIS IS A VALID SPECTRUM
TR,-13
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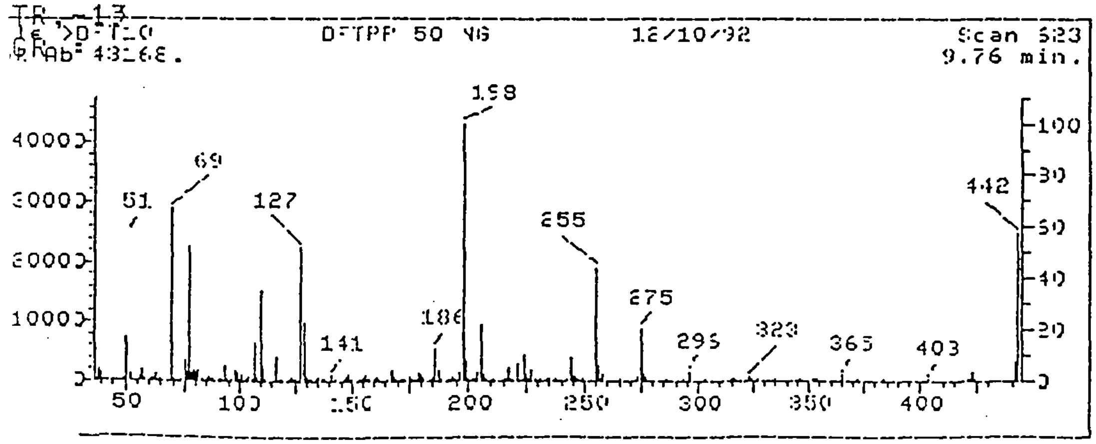

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I
RI[redacted],20,20R,AD,1
-Global(20) =      621.0000
RU,PS,20R
eg type   # pts   scan#    range: amu\r.t.      base    file      ion range
-- ----  ------  -----  ----------------  -------  -----  --------------
x   MS      266    621    37.10-   444.20   34632.1 >DFT08
CA,5,5,+,1
IF,6,LE,10,-5
TR,*DFTP'
***DFTP' FROM HP TO YOUR LIVING ROOM
CA,1:P,5
RU,TUNER,=DFTPP
```

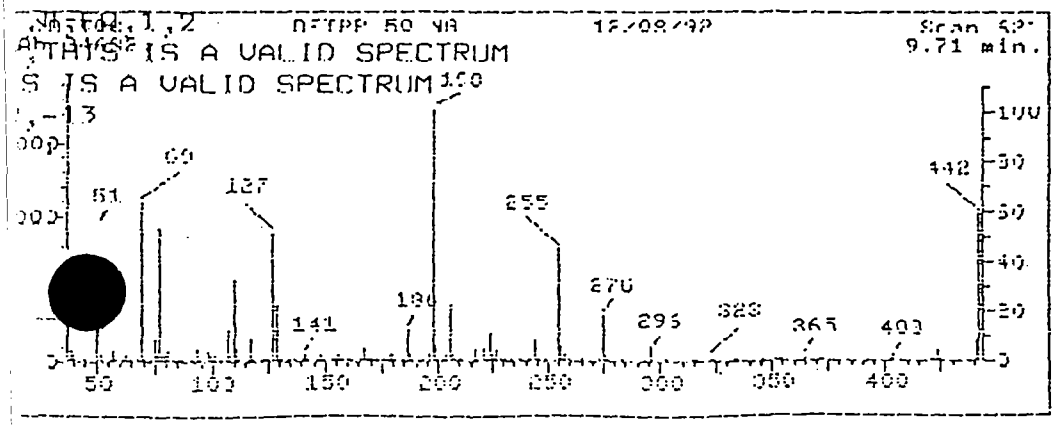
GC/MS PERFORMANCE STANDARD

Decafluorotriphenylphospine (DFTPP)

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	% Relative Abundance Appropriate Peak	Status
51	30-60% of mass 198	53.80	53.80	Ok
	Less than 2% of mass 69	.83	1.32	Ok
	(reference only)	63.18	63.18	Ok
7	Less than 2% of mass 69	.31	.48	Ok
12.	40-60% of mass 198	51.26	51.26	Ok
197	Less than 1% of mass 198	0.00	0.00	Ok
198	Base peak, 100% relative abundance	100.00	100.00	Ok
199	5-9% of mass 198	6.32	6.32	Ok
275	10-30% of mass 198	18.42	18.42	Ok
365	Greater than 1% of mass 198	1.59	1.59	Ok
441	0-100% of mass 443	7.98	72.56	Ok
442	Greater than 40% of mass 198	59.34	59.34	Ok
443	17-23% of mass 442	11.00	18.53	Ok

Injection Date: 12/08/92
Injection Time: 19:04
Data File: >DFT08
Scan: 621

GC/MS #1
2824 A 11156
12/8/92



Continuing Calibration Check
HSL Compounds

Case No: Calibration Date: 12/11/97

Contractor: Time: 02:38

Contract No: Laboratory ID: >FNA10

Instrument ID: 2824A11156 Initial Calibration Date: 11/16/97

Minimum RF for SPCC is 0.050 Maximum % Diff for CCC is 30.00%

Compound	RF	RF	%Diff	CCC	SPCC	
erphenyl-d14	1.00182	.99974	.21			(Conc=50.00)
utylbenzylphthalate	.53589	.58608	9.37			
,3'-Dichlorobenzidine	.05131	.03946	23.10			
enzo(a)Anthracene	.86500	.81296	6.02			
is(2-Ethylhexyl)phthalate	.62908	15.5221	2368.22			
hrysene	.82107	.78981	3.81			
i-n-octylphthalate	1.32798	1.54436	12.07	*		
enzo(b)Fluoranthene	.95971	.91957	4.18			
)fluoranthene	.96521	.90417	6.33			
)pyrene	.81998	.79645	2.87	*		
ndeno(1,2,3-cd)Pyrene	.59633	.57606	3.40			
henz(a,h)Anthracene	.59682	.58151	2.56			
enzo(g,h,i)Perylene	.68133	.66408	2.53			

- Response Factor from daily standard File at 50.00 ng/ul

Average Response Factor from Initial Calibration Form VI

iff - % Difference from original average or curve

- Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Continuing Calibration Check
HSL Compounds

Case No: Calibration Date: 12/10/92

Contractor: Time: 07:38

Contract No: Laboratory ID: >BNA11

Instrument ID: 2B24A11156 Initial Calibration Date: 11/16/92

Minimum RF for SPCC is 0.050 Maximum % Diff for CCC is 30.000%

Compound	RF	RF	%Diff	CCC	SPCC	
,4,6-Trichlorophenol	.29938	.30741	2.68	*		
-Chloronaphthalene	.94646	1.02944	8.77			
-Fluorobiphenyl	1.14681	1.20822	5.40			(Conc=50.00)
imethylphthalate	.91278	.96722	5.96			
cenaphthylene	1.26332	1.44704	14.54			
cenaphthene	.81750	.88957	8.82	*		
,4-Dinitrophenol	.08168	.07999	2.07		**	
- henol	.05795	.06795	17.37		**	
, trotoluene	.23310	.21615	7.27			
,6 otoluene	.17283	.18196	5.28			
-Ni iline	.21327	.23928	12.20			
-Nitroaniline	.12150	.11657	4.05			
-Nitroaniline	.09895	.07846	20.71			
iethylphthalate	.80756	.78151	3.23			
henzofuran	1.00404	1.08852	8.41			
,4,5-Trichlorophenol	.29096	.30892	6.17			
-Chlorophenyl-phenylether	.38081	.38855	2.03			
luorene	.75190	.73194	2.65			
zobenzene	-	-	-			
,4,6 Tribromophenol	.09197	.08503	7.54			(Conc=100.00)
-Nitrosodiphenylamine	.32036	.36666	1.00	*		
,6-Dinitro-2-methylphenol	.09408	.09762	3.76			
-Bromophenyl-phenylether	.15059	.16989	12.81			
exachlorobenzene	.17252	.19200	10.98			
entachlorophenol	.07687	.06690	12.97	*		
henanthrene	.72801	.73085	.39			
nthracene	.71421	.71808	.54			
arbazole	.40169	.38463	4.25			
i-n-Butylphthalate	.74968	.68483	8.65			
luoranthene	.61386	.48851	20.42	*		
enzidine	.01369	-	-			
yrene	1.60226	1.69337	5.65			

RF - Response Factor from daily standard file at 50.00 ng/uL

RF - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

Continuing Calibration Check
HSL Compounds

ase No: Calibration Date: 12/10/92

ontractor: Time: 07:38

ontract No: Laboratory ID: >HNA10

nstrument ID: 2824A11156 Initial Calibration Date: 11/16/92

Minimum RF for SPCC is 0.050 Maximum % Diff for CCC is 30.00%

GC/MS #1
2824A11156
12/10/92

Compound	RF	RF	%Diff	CCC	SPCC
yridine	-	-	-		
niline	.39111	.11754	69.95		
-Fluorophenol	.50356	.60503	20.15		(Conc=100.00)
henol-d5	.45230	.44902	.73		(Conc=100.00)
henol	.54420	.60354	10.90	*	
enzyl alcohol	.24051	.17510	27.20		
is(2-Chloroethyl)Ether	.54419	.64471	18.47		
-F phenol	.38146	.44693	17.16		
- phenol	.45635	.49683	8.87		
-Methylphenol	.36127	.34255	5.18		
-Chlorophenol	.50147	.56095	11.87		
,3-Dichlorobenzene	.65764	.69269	5.33		
,4-Dichlorobenzene	.62258	.65726	5.65	*	
,2-Dichlorobenzene	.64765	.66968	3.40		
is(2-Chloroisopropyl)ether	.55996	.46008	17.84		
-Nitroso-Di-n-propylamine	.33966	.40305	18.67		**
exachloroethane	.26342	.29020	10.16		
itrobenzene-d5	.28140	.30893	9.78		(Conc=50.00)
itrobenzene	.29298	.32941	10.54		
sophorone	.56928	.62010	8.93		
-Nitrophenol	.14885	.13979	6.09	*	
,4-Dimethylphenol	.23535	.26138	11.06		
enzoic acid	.08284	.07901	4.63		
is(2-Chloroethoxy)methane	.31251	.33364	6.76		
,4-Dichlorophenol	.19708	.18620	5.52	*	
,2,4-Trichlorobenzene	.27359	.26170	4.35		
aphthalene	.61370	.73389	19.58		
-Chloroaniline	.16031	.12519	21.90		
exachlorobutadiene	.14619	.14851	1.59	*	
-Chloro-3-methylphenol	.16046	.15822	1.36	*	
-Methylnaphthalene	.42069	.46508	10.55		
exachlorocyclopentadiene	.35821	.41898	16.96		**

- Response Factor from daily standard file at 50.00 ng/ul.

F - Average Response Factor from Initial Calibration Form VI

)iff - % Difference from original average or curve

Continuing Calibration Check
HSL Compounds

Case No: Calibration Date: 12/08/92

Contractor: Time: 19:34

Contract No: Laboratory ID: >HNA08

Instrument ID: 2H24A11156 Initial Calibration Date: 11/16/92

Minimum RF for SPCC is 0.050 Maximum % Diff for CCC is 30.00%

Compound	RF	RF	%Diff	CCC	SPCC	
...ephenyl-d14	1.00187	1.05600	5.40			(Conc=50.00)
...tylbenzylphthalate	.53589	.58966	10.03			
...3'-Dichlorobenzidine	.05131	-	-			
...enzo(a)Anthracene	.86500	.82400	4.74			
...is(2-Ethylhexyl)phthalate	.62908	1.14686	82.31			
...rysene	.82107	.79236	3.50			
...-n-octylphthalate	1.37798	1.43730	4.31	*		
...enzo(b)Fluoranthene	.95971	1.04259	8.64			
...(k)Fluoranthene	.96521	1.10970	14.97			
...pyrene	.81998	.78244	4.58	*		
...3-cd)Pyrene	.59633	.46797	21.52			
...)Anthracene	.59682	.45611	23.58			
...enzo(g,h,i)Perylene	.68133	.52194	23.39			

- Response Factor from daily standard file at 50.00 ng/ul

...erage Response Factor from Initial Calibration Form VI

...ff - % Difference from original average or curve

... - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Continuing Calibration Check
HSL Compounds

se No: | Calibration Date: 12/08/92

ntractor: | Time: 19:34

ntract No: | Laboratory ID: >BNA08

strument ID: 2824A11156 | Initial Calibration Date: 11/16/92

Minimum RF for SPCC is 0.050 | Maximum % Diff for CCC is 30.00%

Compound	RF	RF	%Diff	CCC	SPCC	
,6-Trichlorophenol	.29938	.29790	.50	*		
hloronaphthalene	.94646	.94198	.48			
luorobiphenyl	1.14681	1.10608	3.55			(Conc=50.00)
ethylphthalate	.91278	.89197	2.28			
naphthylene	1.26332	1.39761	10.63			
naphthene	.81750	.65566	19.80	*		
-Dinitrophenol	.08168	.07637	6.50		**	
itrophenol	.05755	.06947	20.70		**	
itrotoluene	.23310	.17212	26.16			
trotoluene	.17283	.17717	2.51			
nitroaniline	.21397	.25122	17.40			
itroaniline	.12150	.08543	29.69			
itroaniline	.09895	.09231	6.71			
thylphthalate	.80756	.71672	11.25			
enzofuran	1.00404	1.04856	4.43			
,5-Trichlorophenol	.29096	.26883	7.61			
hlorophenyl-phenylether	.38081	.37959	.32			
rene	.75190	.76211	1.36			
enzene	-	-	-			
,6 Tribromophenol	.09197	.07699	16.29			(Conc=100.00)
itrosodiphenylamine	.37036	.41429	11.86	*		
-Dinitro-2-methylphenol	.09408	.08493	9.73			
romophenyl-phenylether	.15059	.18120	20.32			
ichlorobenzene	.17752	.19218	8.26			
achlorophenol	.07687	.06128	20.28	*		
anthrene	.72801	.76025	4.43			
racene	.71421	.73074	2.32			
azole	.40169	.33018	17.80			
-Butylphthalate	.74968	.72527	3.26			
ranthene	.61386	.48967	20.23	*		
idine	.01369	-	-			
ne	1.60276	1.36394	14.90			

- Response Factor from daily standard file at 50.00 ng/uL

Average Response Factor from Initial Calibration Form VI

f - % Difference from original average or curve

- Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Continuing Calibration Check
HSL Compounds

Case No: Calibration Date: 12/08/92

Contractor: Time: 19:34

Contract No: Laboratory ID: 2BNA08

Instrument ID: 2824A11156 Initial Calibration Date: 11/16/92

Minimum RF for SPCC is 0.050 Maximum % Diff for CCC is 30.00%

GC/MS #1
2824 A 11156
12/8/92

Compound	RF	RF	%Diff	CCC	SPCC	
Pyridine	-	-	-			
Aniline	.39111	.19436	50.31			
2-Fluorophenol	.50356	.50203	.31			(Conc=100.00)
Phenol-d5	.45230	.49606	9.68			(Conc=100.00)
Phenol	.54420	.60716	11.57	*		
Benzyl alcohol	.24051	.19260	19.92			
Bis(2-Chloroethyl)Ether	.54419	.68630	26.11			
2-Methylphenol	.38146	.43053	12.86			
2,2'-oxybis(1-Chloropropane)	.45635	.57105	25.13			
4-Methylphenol	.36127	.47093	30.35			
N-Nitroso-Di-n-propylamine	.50142	.54882	9.45			
Hexachloroethane	.65764	.66611	1.29			
Nitrobenzene-d5	.62958	.67633	8.63	*		
Nitrobenzene	.64765	.68083	5.12			
Bis(2-Chloroisopropyl)ether	.55996	.46621	16.74			
N-Nitroso-Di-n-propylamine	.33966	.47703	40.44		**	
Hexachloroethane	.26342	.31089	18.02			
Nitrobenzene-d5	.28140	.29937	6.39			(Conc=50.00)
Nitrobenzene	.29798	.31423	5.45			
Isophorone	.56928	.63818	12.10			
2-Nitrophenol	.14885	.13453	9.62	*		
2,4-Dimethylphenol	.23535	.26851	14.09			
Benzoic acid	.08284	.08305	.25			
Bis(2-Chloroethoxy)methane	.31251	.32897	5.27			
2,4-Dichlorophenol	.19708	.19581	.65	*		
1,2,4-Trichlorobenzene	.27359	.24048	12.10			
Naphthalene	.61370	.73698	20.09			
4-Chloroaniline	.16030	.15168	5.37			
Hexachlorobutadiene	.14619	.13386	8.43	*		
4-Chloro-3-methylphenol	.16046	.19298	20.26	*		
2-Methylnaphthalene	.42069	.51298	21.94			
Hexachlorocyclopentadiene	.35821	.31689	11.54		**	

RF - Response Factor from daily standard file at 50.00 ng/ul.

Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

QUALITY CONTROL
PAH SOIL BLANK SPIKE

Lab Name: Environmental Health Research & Testing, Inc.

Contract: MAECORP INCORPORATED

Source: U.S. Army Reserve Center, 645th

Customer Sample No.: N/A Cust. Proj. No.: 3079

EHRT Sample No.: N/A Project No.: 15960

COMPOUND	SPIKE ADDED (ug/kg)	SAMPLE CONC. (ug/kg)	MS CONC. (ug/kg)	MS% REC #	QC LIMITS REC.
1,4-Dichlorobenzene	10,000	0.0	5,310	53	28-104
N-Nitroso-dl-n-Propylamine	10,000	0.0	5,680	57	41-126
1,2,4-Trichlorobenzene	10,000	0.0	5,520	55	38-107
Acenaphthene	10,000	0.0	5,550	56	31-137
2,4-Dinitrotoluene	10,000	0.0	5,260	53	28-89
Pyrene	10,000	0.0	6,880	69	35-142

Column to be used to flag recovery values with an asterisk
* Values outside of QC limits

Spike Recovery: 0 out of 6 outside limits

COMMENTS:

3D
QUALITY CONTROL
SOIL PAH MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Environmental Health Research & Testing, Inc.

Contract: MAECORP INCORPORATED

Source: U.S. Army Reserve Center, 645th (Tank 2 - Northwall of Cavity)

Customer Sample No.: 2 Northwall Cust. Proj. No.: 3079

EHRT Sample No.: 15960-005 Project No.: 15960

COMPOUND	SPIKE ADDED (ug/kg)	SAMPLE CONC. (ug/kg)	MS CONC. (ug/kg)	MS% REC #	QC LIMITS REC.
1,4-Dichlorobenzene	10,000	0.0	5,130	51	28-104
N-Nitroso-di-n-Propylamine	10,000	0.0	5,540	55	41-126
1,2,4-Trichlorobenzene	10,000	0.0	5,380	54	38-107
Acenaphthene	10,000	0.0	5,320	53	31-137
2,4-Dinitrotoluene	10,000	0.0	4,920	49	28-89
Pyrene	10,000	0.0	6,270	63	35-142

COMPOUND		MSD CONC. (ug/kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,4-Dichlorobenzene	10,000	5,040	50	2	27	28-104
N-Nitroso-di-n-Propylamine	10,000	5,390	54	2	38	41-126
1,2,4-Trichlorobenzene	10,000	5,230	52	4	23	38-107
Acenaphthene	10,000	5,030	50	6	19	31-137
2,4-Dinitrotoluene	10,000	5,160	52	6	47	28-89
Pyrene	10,000	4,500	45	33	36	35-142

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 6 outside limits
Spike Recovery: 0 out of 12 outside limits

COMMENTS:

PAH ANALYSIS DATA SHEET
(EPA Method 8270 PAH)

SAMPLE NO.
N/A

Lab Name: Environmental Health Research & Testing, Inc.

Contract: MAECORP INCORPORATED **Customer Proj. #:** 3079

Source: U.S. Army Reserve Center, 645th

Matrix: (soil/water) Water Blank EHRT Sample I.D.: N/A

Lab Notebook:	310, Pg. 59	Date Sampled:	N/A
Sample Volume:	1000.0 (mL)	Date Received:	N/A
Conc. Extract Vol.:	1.0 (mL)	Date Extracted:	12-07-92
Injection Volume:	1.0 (uL)	Date Analyzed:	12-08-92
pH: 7.0	Percent Solid: N/A	Dilution Factor:	1

	CAS NO.	COMPOUND	Detection Limits (ug/L)	RESULTS	FLAG
1.	83-32-9	Acenaphthene	2.0	U	
2.	208-96-8	Acenaphthylene	2.0	U	
3.	120-12-7	Anthracene	2.0	U	
4.	56-55-3	Benzo(a)anthracene	3.0	U	
5.	50-32-8	Benzo(a)pyrene	6.0	U	
6.	205-99-2	Benzo(b)fluoranthene	10.0	U	
7.	191-24-2	Benzo(g,h,i)perylene	10.0	U	
8.	207-08-9	Benzo(k)fluoranthene	10.0	U	
9.	218-01-9	Chrysene	3.0	U	
10.	53-70-3	Dibenz(a,h)anthracene	10.0	U	
11.	206-44-0	Fluoranthene	2.0	U	
12.	86-73-7	Fluorene	3.0	U	
13.	193-39-5	Indeno(1,2,3-cd)pyrene	10.0	U	
14.	91-20-3	Naphthalene	1.0	U	
15.	85-01-8	Phenanthrene	2.0	U	
16.	129-00-0	Pyrene	2.0	U	

	Surrogate Standard	Recovery (%)	Acceptable	Spike (ug/L)
17.	Nitrobenzene-d5	62	35-114	100
18.	2-Fluorobiphenyl	56	43-116	100
19.	Terphenyl-d14	88	33-141	100

U: Below Detection Limit

PAH ANALYSIS DATA SHEET
(EPA Method 8270 PAH)

SAMPLE NO.: N/A

Lab Name: Environmental Health Research & Testing, Inc.

Contract: MAECORP INCORPORATED **Customer Proj. #:** 3079

Source: U.S. Army Reserve Center, 645th

Matrix: (soil/water) Soil Blank EHRT Sample I.D.: N/A

Lab Notebook:	310, Pg. 69	Date Sampled:	N/A
Sample Weight:	10.0 (g)	Date Received:	N/A
Conc. Extract Vol.:	1.0 (mL)	Date Extracted:	12-11-92
Injection Volume:	1.0 (uL)	Date Analyzed:	12-18-92
pH: 7.0	Percent Solid: 100	Dilution Factor:	1

	CAS NO.	COMPOUND	Detection Limits (ug/kg)	RESULTS	FLAG
1.	83-32-9	Acenaphthene	500	U	
2.	208-96-8	Acenaphthylene	500	U	
3.	120-12-7	Anthracene	500	U	
4.	56-55-3	Benzo(a)anthracene	500	U	
5.	50-32-8	Benzo(a)pyrene	1000	U	
6.	205-99-2	Benzo(b)fluoranthene	2000	U	
7.	191-24-2	Benzo(g,h,i)perylene	2000	U	
8.	207-08-9	Benzo(k)fluoranthene	2000	U	
9.	218-01-9	Chrysene	500	U	
10.	53-70-3	Dibenz(a,h)anthracene	2000	U	
11.	206-44-0	Fluoranthene	500	U	
12.	86-73-7	Fluorene	500	U	
13.	193-39-5	Indeno(1,2,3-cd)pyrene	2000	U	
14.	91-20-3	Naphthalene	300	U	
15.	85-01-8	Phenanthrene	500	U	
16.	129-00-0	Pyrene	300	U	

	Surrogate Standard	Recovery (%)	Acceptable	Spike (ug/kg)
17.	Nitrobenzene-d5	66	23-120	100
18.	2-Fluorobiphenyl	62	30-115	100
19.	Terphenyl-d14	85	18-131	100

U: Below Detection Limit

PAH ANALYSIS DATA SHEET
(EPA Method 8270 PAH)

SAMPLE NO.
N/A

Lab Name: Environmental Health Research & Testing, Inc.

Contract: MAECORP INCORPORATED **Customer Proj. #:** 3079

Source: U.S. Army Reserve Center, 645th

Matrix: (soil/water) Soil Blank EHRT Sample I.D.: N/A

Lab Notebook: 310, Pg. 63
Sample Weight: 10.0 (g)
Conc. Extract Vol.: 1.0 (mL)
Injection Volume: 1.0 (uL)
pH: 7.0 Percent Solid: 100

Date Sampled: N/A
Date Received: N/A
Date Extracted: 12-07-92
Date Analyzed: 12-10-92
Dilution Factor: 1

	CAS NO.	COMPOUND	Detection Limits (ug/kg)	RESULTS	FLAG
1.	83-32-9	Acenaphthene	500	U	
2.	208-96-8	Acenaphthylene	500	U	
3.	120-12-7	Anthracene	500	U	
4.	56-55-3	Benzo(a)anthracene	500	U	
5.	50-32-8	Benzo(a)pyrene	1000	U	
6.	205-99-2	Benzo(b)fluoranthene	2000	U	
7.	191-24-2	Benzo(g,h,i)perylene	2000	U	
8.	207-08-9	Benzo(k)fluoranthene	2000	U	
9.	218-01-9	Chrysene	500	U	
10.	53-70-3	Dibenz(a,h)anthracene	2000	U	
11.	206-44-0	Fluoranthene	500	U	
12.	86-73-7	Fluorene	500	U	
13.	193-39-5	Indeno(1,2,3-cd)pyrene	2000	U	
14.	91-20-3	Naphthalene	300	U	
15.	85-01-8	Phenanthrene	500	U	
16.	129-00-0	Pyrene	300	U	

	Surrogate Standard	Recovery (%)	Acceptable	Spike (ug/kg)
17.	Nitrobenzene-d5	47	23-120	100
18.	2-Fluorobiphenyl	50	30-115	100
19.	Terphenyl-d14	75	18-131	100

U: Below Detection Limit

ENVIRONMENTAL HEALTH RESEARCH AND TESTING, INC.

BETX MATRIX SPIKE/MATRIX SPIKE DUPLICATE ANALYSIS

CUSTOMER NAME:	MAECORP INCORPORATED		
SAMPLE SOURCE:	U.S. Army Reserve Center, 645th (Tank 2 - North Wall of Cavity)		
CUSTOMER PROJECT NO.:	3079	PROJECT NO.:	15960
SAMPLE TYPE:	Soil Sample	DATE ANALYZED:	12-10-92
CUSTOMER SAMPLE NO.:	2 North Wall	EHRT SAMPLE NO.:	15960-005
LAB NOTEBOOK NO.:	266, Pg. 66	METHOD NO.:	EPA 8020

MATRIX SPIKE

COMPOUNDS	TRUE VALUE (ug/kg)	RECOVERED VALUE (ug/kg)	% RECOVERY
1. Benzene	20.0	18.5	93
2. Ethylbenzene	20.0	20.8	104
3. Toluene	20.0	20.0	100
4. Xylene	60.0	59.9	100

MATRIX SPIKE DUPLICATE

COMPOUNDS	TRUE VALUE (ug/kg)	RECOVERED VALUE (ug/kg)	% RECOVERY
1. Benzene	20.0	19.5	98
2. Ethylbenzene	20.0	21.1	106
3. Toluene	20.0	21.1	106
4. Xylene	60.0	61.5	103

ENVIRONMENTAL HEALTH RESEARCH AND TESTING, INC.

BETX BLANK SPIKE ANALYSIS

CUSTOMER NAME:	MAECORP INCORPORATED		
SAMPLE SOURCE:	U.S. Army Reserve Center, 645th		
CUSTOMER PROJECT NO.:	3079	PROJECT NO.:	15960
SAMPLE TYPE:	Water Blank	DATE ANALYZED:	12-10-92
CUSTOMER SAMPLE NO.:	N/A	EHRT SAMPLE NO.:	N/A
LAB NOTEBOOK NO.:	266, Pg. 66	METHOD NO.:	EPA 8020

BLANK SPIKE

COMPOUNDS	TRUE VALUE (ug/L)	RECOVERED VALUE (ug/L)	% RECOVERY
1. Benzene	20.0	22.3	112
2. Ethylbenzene	20.0	24.6	123
3. Toluene	20.0	22.2	111
4. Xylene	60.0	64.6	108

ENVIRONMENTAL HEALTH RESEARCH AND TESTING, INC.

RESULT SHEET

STOMER NAME: MAECORP INCORPORATED

SAMPLE SOURCE: U.S. Army Reserve Center, 645th - Proj. No. 3079

ANALYSIS PERFORMED: TRPH (EPA 9071/418.1)

DATE ANALYZED: 12/10/92 LAB NOTEBOOK NO.: 304, Pg. 63-64

SAMPLE NO. EHRT NO.	CUSTOMER NO.	DESCRIPTION	MATRIX	RESULTS
15960-001	1 South Side	Tank 1 - South Wall of Cavity	Soil	356 mg/kg
15960-003	1 Stockpile	Tank 1 - Stockpiled Soil	Soil	47.5 mg/kg
15960-004	2 Bottom	Tank 2 - Excavation Bottom	Soil	6950 mg/kg
15960-005	2 Northwall	Tank 2 - North Wall of Cavity	Soil	< 15.0 mg/kg
		QUALITY CONTROL		
ıod Blank	N/A	N/A	Soil	< 15.0 mg/kg
Method Blank	N/A	N/A	Water	< 0.50 mg/L
15960-004 Duplicate	2 Bottom	Tank 2 - Excavation Bottom	Soil	6650 mg/kg
Blank Spike	N/A	N/A	Water	91% Recovery
Blank Spike Dup	N/A	N/A	Water	88% Recovery
Blank Spike	N/A	N/A	Soil	97% Recovery
15960-005 Matrix Spike	2 Northwall	Tank 2 - North Wall of Cavity	Soil	101% Recovery
15960-005 Matrix Spike Duplicate	2 Northwall	Tank 2 - North Wall of Cavity	Soil	82% Recovery

ENVIRONMENTAL HEALTH RESEARCH AND TESTING, INC.

RESULT SHEET

CUSTOMER NAME: MAECORP INCORPORATED

SAMPLE SOURCE: U.S. Army Reserve Center, 645th - Proj. No. 3079

ANALYSIS PERFORMED: TCLP Metals (EPA6010; As7060; Se7740; Hg7470)

DATE ANALYZED: 12/9/92 LAB NOTEBOOK NO.: 312; 313; 314; 317

SAMPLE NO. EHRT NO.	CUSTOMER NO.	MATRIX		RESULTS (mg/L)
15960-003	1 Stockpile Tank 1 - Stockpiled Soil	TCLP Extract	Arsenic (As)	< 0.0010
			Barium (Ba)	0.33
			Cadmium (Cd)	< 0.0040
			Chromium (Cr)	< 0.0080
			Lead (Pb)	< 0.017
			Mercury (Hg)	< 0.00010
			Selenium (Se)	< 0.0020
			Silver (Ag)	< 0.0040

Post Digest Spike (Arsenic) = 107% Recovery
Post Digest Spike (Selenium) = 92% Recovery

ENVIRONMENTAL HEALTH RESEARCH AND TESTING, INC.

RESULT SHEET

CUSTOMER NAME: MAECORP INCORPORATED

SAMPLE SOURCE: U.S. Army Reserve Center, 645th - Proj. No. 3079

ANALYSIS PERFORMED: TCLP Metals (EPA6010; As7060; Se7740; Hg7470)

DATE ANALYZED: 12/3/92 LAB NOTEBOOK NO.: 312; 313; 314;317

SAMPLE NO. EHRT NO.	CUSTOMER NO.	MATRIX	RESULTS (mg/L)	
15960-003 Duplicate	1 Stockpile Tank 1 - Stockpiled Soil	TCLP Extract	Arsenic (As)	< 0.0010
			Barium (Ba)	0.35
			Cadmium (Cd)	< 0.0040
			Chromium (Cr)	< 0.0080
			Lead (Pb)	< 0.017
			Mercury (Hg)	< 0.00010
			Selenium (Se)	< 0.0020
Post Digest Spike (Selenium) = 101% Recovery			Silver (Ag)	< 0.0040

ENVIRONMENTAL HEALTH RESEARCH AND TESTING, INC.

RESULT SHEET

CUSTOMER NAME: MAECORP INCOPORATED

SAMPLE SOURCE: Army Reserve Center - Youngstown, Ohio - Proj. No. 2079

ANALYSIS PERFORMED: Barium (EPA 6010)

DATE ANALYZED: 12/30/92 LAB NOTEBOOK NO.: 320, Pg. 12

SAMPLE NUMBERS EHRT NO.	CUSTOMER NO.	MATRIX	RESULTS (mg/L)
16021-001	Y1 Soil from Stockpile	TCLP Extract	0.22
16021-002	Y2 Soil from Stockpile	TCLP Extract	0.37
	QUALITY CONTROL		
Method Blank	N/A	Blank	BDL

Detection Limit - < 0.0020 mg/L

RECEIVED
JAN 4 1992

MAECORP INCORPORATED

QA/QC REVIEWED 1-5-92

QA/QC APPROVED 1-5-92

DATE 1-5-92

SIGNED Freddie Watt

ENVIRONMENTAL HEALTH RESEARCH AND TESTING, INC.
CODE EXPLANATION FOR METAL ANALYSIS

"Lab Code" Is for our information.

"Work Order" Is the Customers Project No.

"Project" Is the EHRT Project No.

"SDG No." Is for our information.

UNDER COLUMN C:

"U" Element not detected, below detection limit.

"B" Element concentration just greater than instrument detection limit (IDL).

UNDER COLUMN Q:

"N" Spiked sample recovery out of control limit.

* Duplicate analysis out of control limit.

UNDER COLUMN M:

"P" ICP analysis.

"F" Furnace AA analysis.

"CV" Manual Cold Vapor AA analysis.

"NR" Not Required

FOR ORGANIC ANALYSIS:

"J" Indicates trace amount showing.

ENVIRONMENTAL HEALTH RESEARCH & TESTING

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: ENV._HEALTH_RESEARCH_TEST Contract: MAECORP___

Work_Order: 3079__ Project: 15960_ Date Analyzed: 12/09/92_____

Initial Calibration Source: SPEX_____

Continuing Calibration Source: SPEX_____

Concentration Units: ug/L

Analyte	Initial Calibration True	Found	%R(1)	Continuing Calibration True	Found	%R(1)	Found	%R(1)	M
Aluminum									NR
Antimony									NR
Arsenic				50.0	51.20	102.4			F
Barium									NR
Beryllium									NR
Cadmium									NR
Calcium									NR
Chromium									NR
Cobalt									NR
Copper									NR
Iron									NR
Lead									NR
Magnesium									NR
Manganese									NR
Mercury									NR
Nickel									NR
Potassium									NR
Selenium				20.0	19.60	98.0	17.80	89.0	F
Silver									NR
Sodium									NR
Thallium									NR
Vanadium									NR
Zinc									NR
Tin									NR

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

ENVIRONMENTAL HEALTH RESEARCH & TESTING

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: ENV._HEALTH_RESEARCH_TEST Contract: MAECORP___

Work_Order: 3079__ Project: 15960_ Date Analyzed: 12/09/92_____

Initial Calibration Source: SPEX_____

Continuing Calibration Source: SPEX_____

Concentration Units: ug/L

Analyte	Initial Calibration True	Found	%R(1)	Continuing Calibration True	Found	%R(1)	Found	%R(1)	M
Aluminum									NR
Antimony									NR
Arsenic	50.0	51.20	102.4	50.0	51.90	103.8	51.30	102.6	F
Barium	500.0	485.90	97.2	500.0	455.30	91.1			P
[illegible]llium									NR
[illegible]ium	500.0	525.40	105.1	500.0	540.60	108.1			P
Ca[illegible]cium									NR
Chromium	500.0	487.00	97.4	500.0	483.70	96.7			P
Cobalt									NR
Copper									NR
Iron									NR
Lead	500.0	519.70	103.9	500.0	514.50	102.9			P
Magnesium									NR
Manganese									NR
Mercury	5.0	4.89	97.8	5.0	5.26	105.2			CV
Nickel									NR
Potassium									NR
Selenium	20.0	19.60	98.0	20.0	21.80	109.0	19.40	97.0	F
Silver	100.0	103.80	103.8	100.0	114.10	114.1			P
Sodium									NR
Thallium									NR
Vanadium									NR
Zinc									NR
Tin									NR

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

ENVIRONMENTAL HEALTH RESEARCH & TESTING

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: ENV._HEALTH_RESEARCH_TEST Contract: MAECORP___

Work_Order: 2079__ Project: 16021_ Date Analyzed: 12/30/92_____

Initial Calibration Source: SPEX_____

Continuing Calibration Source: SPEX_____

Concentration Units: ug/L

Analyte	Initial Calibration True	Found	%R(1)	Continuing Calibration True	Found	%R(1)	Found	%R(1)	M
Aluminum									NR
Antimony									NR
Arsenic									NR
Barium	500.0	498.90	99.8	500.0	466.00	93.2			P
[illegible]yllium									NR
[illegible]mium									NR
[illegible]lcium									NR
Chromium									NR
Cobalt									NR
Copper									NR
Iron									NR
Lead									NR
Magnesium									NR
Manganese									NR
Mercury									NR
Nickel									NR
Potassium									NR
Selenium									NR
Silver									NR
Sodium									NR
Thallium									NR
Vanadium									NR
Zinc									NR
Tin									NR

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

ENVIRONMENTAL HEALTH RESEARCH & TESTING

3
BLANKS

Lab Name: ENV._HEALTH_RESEARCH_TEST Contract: MAECORP___

Work_Order: 3079__ Project: 15960_ Date Analyzed: 12/09/92_____

Preparation Blank Matrix (soil/water): _____

Preparation Blank Concentration Units (ug/L or mg/kg): _____

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											NR
Antimony											NR
Arsenic											NR
Barium											NR
Beryllium											NR
Cadmium											NR
Calcium											NR
Chromium											NR
Cobalt											NR
Copper											NR
Iron											NR
Lead											NR
Magnesium											NR
Manganese											NR
Mercury											NR
Nickel											NR
Potassium											NR
Selenium			2.0	U							F
Silver											NR
Sodium											NR
Thallium											NR
Vanadium											NR
Zinc											NR
Tin											NR

ENVIRONMENTAL HEALTH RESEARCH & TESTING

3
BLANKS

Lab Name: ENV._HEALTH_RESEARCH_TEST Contract: MAECORP___

Work_Order: 3079__ Project: 15960_ Date Analyzed: 12/09/92_____

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L_

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	TCLP Prepa-ration Blank	C	M
Aluminum											NR
Antimony											NR
:enic	1.0	U	1.0	U	1.0	U	1.0	U	1.000	U	F
.ium	2.0	U	2.0	U					2.000	U	P
Beryllium											NR
Cadmium	4.0	U	4.0	U					4.000	U	P
Calcium											NR
Chromium	8.0	U	8.0	U					8.000	U	P
Cobalt											NR
Copper											NR
Iron											NR
Lead	17.0	U	17.0	U					17.000	U	P
Magnesium											NR
Manganese											NR
Mercury	0.1	U	0.1	U					0.1000	U	CV
Nickel											NR
Potassium											NR
Selenium	2.0	U	2.0	U	2.0	U	2.0	U	2.000	U	F
Silver	4.0	U	15.0						4.000	U	P
Sodium											NR
Thallium											NR
Vanadium											NR
Zinc											NR
Tin											NR

BLANKS

Lab Name: ENV._HEALTH_RESEARCH_TEST Contract: MAECORP___

Work_Order: 2079__ Project: 16021_ Date Analyzed: 12/30/92_____

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L_

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											NR
Antimony											NR
Arsenic											NR
[illegible]ium	2.0	U	2.0	U					2.000	U	P
[illegible]llium											NR
[illegible]um											NR
Calcium											NR
Chromium											NR
Cobalt											NR
Copper											NR
Iron											NR
Lead											NR
Magnesium											NR
Manganese											NR
Mercury											NR
Nickel											NR
Potassium											NR
Selenium											NR
Silver											NR
Sodium											NR
Thallium											NR
Vanadium											NR
Zinc											NR
Tin											NR

ENVIRONMENTAL HEALTH RESEARCH & TESTING

4

ICP INTERFERENCE CHECK SAMPLE

Lab Name: ENV._HEALTH_RESEARCH_TEST Contract: MAECORP___

Work_Order: 3079__ Project: 15960_ Date Analyzed: 12/09/92___

ICP ID Number: SER# 49483__ ICS Source: _____

Concentration Units: ug/L

Analyte	True Sol. A	True Sol. AB	Initial Found Sol. A	Initial Found Sol. AB	Initial Found %R	Final Found Sol. A	Final Found Sol. AB	Final Found %R
Aluminum	500000	500000	460100	463300.0	92.7	458000	460600.0	92.1
Antimony								
Arsenic								
Barium		500		523.9	104.8		523.6	104.7
Beryllium		500		501.9	100.4		494.2	98.8
Cadmium		1000		970.5	97.0		907.5	90.8
Calcium	500000	500000	463700	472000.0	94.4	452500	447900.0	89.6
Chromium		500		458.6	91.7		453.1	90.6
Cobalt		500		480.9	96.2		461.8	92.4
Copper		500		502.5	100.5		512.3	102.5
Iron	200000	200000	171000	170800.0	85.4	173400	168900.0	84.4
Lead		1000		1048.0	104.8		998.0	99.8
Magnesium	500000	500000	470000	475200.0	95.0	475100	478100.0	95.6
Manganese		500		537.7	107.5		521.2	104.2
Mercury								
Nickel		1000		890.6	89.1		882.6	88.3
Potassium								
Selenium								
Silver		1000		955.8	95.6		952.3	95.2
Sodium								
Thallium								
Vanadium		500		457.8	91.6		447.2	89.4
Zinc		1000		909.0	90.9		867.5	86.8

FORM IV - IN

ILMO2.1

ICP INTERFERENCE CHECK SAMPLE

Name: ENV._HEALTH_RESEARCH_TEST Contract: MAECORP___

Work_Order: 2079__ Project: 16021_ Date Analyzed: 12/30/92___

ICP ID Number: SER# 49483__ ICS Source: _____

Concentration Units: ug/L

Analyte	True Sol. A	True Sol. AB	Initial Found Sol. A	Initial Found Sol. AB	Initial Found %R	Final Found Sol. A	Final Found Sol. AB	Final Found %R
Aluminum	500000	500000	483300	488700.0	97.7	461900	481600.0	96.3
Antimony								
Arsenic								
Barium		500		494.9	99.0		473.9	94.8
Beryllium		500		475.2	95.0		455.6	91.1
Cadmium		1000		920.2	92.0		884.1	88.4
Calcium	500000	500000	465200	478900.0	95.8	453600	467600.0	93.5
Chromium		500		443.3	88.7		435.7	87.1
Cobalt		500		457.2	91.4		443.7	88.7
Copper		500		498.1	99.6		475.9	95.2
Iron	200000	200000	172000	176300.0	88.2	165100	170600.0	85.3
Lead		1000		1052.0	105.2		981.5	98.2
Magnesium	500000	500000	487100	494200.0	98.8	463000	480300.0	96.1
Manganese		500		537.2	107.4		522.5	104.5
Mercury								
Nickel		1000		880.7	88.1		849.8	85.0
Potassium								
Selenium								
Silver		1000		934.4	93.4		912.2	91.2
Sodium								
Thallium								
Vanadium		500		434.1	86.8		419.0	83.8
Zinc		1000		928.5	92.8		906.7	90.7

ENVIRONMENTAL HEALTH RESEARCH & TESTING

5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.
STOCKPILES

Lab Name: ENV._HEALTH_RESEARCH_TEST Contract: MAECORP___

Work_Order: 3079__ Project: 15960_ Date Analyzed: 12/09/92___

Matrix (soil/water): WATER_ Level (low/med): LOW___

% Solids for Sample: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									NR
Antimony									NR
Arsenic	75-125	516.0000		1.0000	U	500.00	103.2		F
Barium	75-125	845.8000		329.5000		500.00	103.3		P
Beryllium									NR
Cadmium	75-125	530.2000		4.0000	U	500.00	106.0		P
Calcium									NR
omium	75-125	478.8000		8.0000	U	500.00	95.8		P
balt									NR
Copper									N
Iron									NR
Lead	75-125	512.5000		17.0000	U	500.00	102.5		P
Magnesium									NR
Manganese									NR
Mercury	75-125	4.4690		0.1000	U	5.00	89.4		CV
Nickel									NR
Potassium									NR
Selenium	75-125	586.0000		2.0000	U	500.00	117.2		F
Silver	75-125	489.8000		4.0000	U	500.00	98.0		P
Sodium									NR
Thallium									NR
Vanadium									NR
Zinc									NR
Tin									NR

Comments:
1_STOCKPILE__TANK_1_-_STOCKPILED_SOIL

ENVIRONMENTAL HEALTH RESEARCH AND TESTING, INC.

RESULT SHEET

CUSTOMER NAME: MAECORP INCORPORATED

SAMPLE SOURCE: U.S. Army Reserve Center, 645th - Proj. No. 3079

ANALYSIS PERFORMED: Flashpoint (EPA 1020), Paint Filter (EPA 9095), pH (EPA 9045)

DATE ANALYZED: 12/10,14/92 LAB NOTEBOOK NO.: 267, Pg. 63-64

SAMPLE NO. EHRT NO.	CUSTOMER NO.	STATION LOCATION	MATRIX	FLASHPOINT	PAINT FILTER	pH
15960-003	1 Stockpile	Tank 1 - Stockpiled soil	Soil	> 160 Degrees F	Affirmative	7.746

*Affirmative means no liquid passed through the paint filter.

*** This is a reprint of an earlier report ***

CLIENT: Maecorp
CONTACT: Mr. Mike Pannell

SAMPLE ID: WRQF|8132
ACCESSION NUMBER: 8389

DATE RECEIVED: 02/26/93
DATE COLLECTED:
DATE REPORTED: 03/01/93

COMPOUND			RESULT	METHOD
BTUs	(BTU/lb)		17588	ASTM 240D
Total Halogens	(ppm)		328	EPA 9076
Weight Factor	(lb/gal)		7.39	
Flame Test	Negative			
Compatibility/Reactivity	No Reaction			
Flash Point (closed cup)	(F)		156	EPA 1010
pH			6	EPA 9040
Karl-Fischer Water %	(%)		1.95	Karl-Fischer
ases Found	Single 100% Liquid			
oclor 1016	(ppm)	<	2	EPA 8080A
Aroclor 1221	(ppm)	<	2	EPA 8080A
Aroclor 1232	(ppm)	<	2	EPA 8080A
Aroclor 1242	(ppm)	<	2	EPA 8080A
Aroclor 1248	(ppm)	<	2	EPA 8080A
Aroclor 1254	(ppm)	<	2	EPA 8080A
Aroclor 1260	(ppm)	<	2	EPA 8080A
Methanol	(%)	<	.01	GC/FID Screen
Acetone	(%)	<	.01	GC/FID Screen
Methyl Ethyl Ketone	(%)	<	.01	GC/FID Screen
Ethyl Acetate	(%)	<	.01	GC/FID Screen
Isobutanol	(%)	<	.01	GC/FID Screen
N-Butanol	(%)	<	.01	GC/FID Screen
Benzene	(%)	<	.01	GC/FID Screen
Cellosolve	(%)	<	.01	GC/FID Screen
MIBK	(%)	<	.01	GC/FID Screen
Cyclohexanone	(%)	<	.01	GC/FID Screen
Toluene	(%)	<	.01	GC/FID Screen
Ethyl Benzene	(%)	<	.01	GC/FID Screen
Butyl Cellosolve	(%)	<	.01	GC/FID Screen
m,p-Xylene	(%)	<	.01	GC/FID Screen
Styrene	(%)	<	.01	GC/FID Screen
o-Xylene	(%)	<	.01	GC/FID Screen
Gasoline	(%)		0	GC/FID Screen
Mineral Spirits	(%)		0	GC/FID Screen
Naptha	(%)		0	GC/FID Screen
Kerosene	(%)		0	GC/FID Screen
iesel Fuel	(%)		100	GC/FID Screen
Petroleum Distillates(Others)	(%)		0	GC/FID Screen

*** This is a reprint of an earlier report ***

CLIENT: Maecorp
CONTACT: Mr. Mike Pannell

SAMPLE ID: WRQF|8132
ACCESSION NUMBER: 8389

DATE RECEIVED: 02/26/93
DATE COLLECTED:
DATE REPORTED: 03/01/93

COMPOUND			RESULT	METHOD
BTUs	(BTU/lb)		17588	ASTM 240D
Total Halogens	(ppm)		328	EPA 9076
Weight Factor	(lb/gal)		7.39	
Flame Test	Negative			
Compatibility/Reactivity	No Reaction			
Flash Point (closed cup)	(F)		156	EPA 1010
pH			6	EPA 9040
Karl-Fischer Water %	(%)		1.95	Karl-Fischer
[illegible]ses Found	Single 100% Liquid			
[illegible]lor 1016	(ppm)	<	2	EPA 8080A
Aroclor 1221	(ppm)	<	2	EPA 8080A
Aroclor 1232	(ppm)	<	2	EPA 8080A
Aroclor 1242	(ppm)	<	2	EPA 8080A
Aroclor 1248	(ppm)	<	2	EPA 8080A
Aroclor 1254	(ppm)	<	2	EPA 8080A
Aroclor 1260	(ppm)	<	2	EPA 8080A
Methanol	(%)	<	.01	GC/FID Screen
Acetone	(%)	<	.01	GC/FID Screen
Methyl Ethyl Ketone	(%)	<	.01	GC/FID Screen
Ethyl Acetate	(%)	<	.01	GC/FID Screen
Isobutanol	(%)	<	.01	GC/FID Screen
N-Butanol	(%)	<	.01	GC/FID Screen
Benzene	(%)	<	.01	GC/FID Screen
Cellosolve	(%)	<	.01	GC/FID Screen
MIBK	(%)	<	.01	GC/FID Screen
Cyclohexanone	(%)	<	.01	GC/FID Screen
Toluene	(%)	<	.01	GC/FID Screen
Ethyl Benzene	(%)	<	.01	GC/FID Screen
Butyl Cellosolve	(%)	<	.01	GC/FID Screen
m,p-Xylene	(%)	<	.01	GC/FID Screen
Styrene	(%)	<	.01	GC/FID Screen
o-Xylene	(%)	<	.01	GC/FID Screen
Gasoline	(%)		0	GC/FID Screen
Mineral Spirits	(%)		0	GC/FID Screen
[illegible]tha	(%)		0	GC/FID Screen
[illegible]osene	(%)		0	GC/FID Screen
Diesel Fuel	(%)		100	GC/FID Screen
Petroleum Distillates(Others)	(%)		0	GC/FID Screen

M RP INCORPORATED
155 /acker Drive, Suite 400
Chicago, IL 60606
312/372-3300
Attn: QA/QC Coordinator

CHAIN-OF-CUS Y RECORD

CHAIN-OF-CUSTODY № C 09118

RECEIVING ENTITY Clark Processing

ENTITY CONTACT/PHONE John Denny

RESPONSE/PROJECT MANAGER ED S[illegible]

MAECORP SITE PHONE N/A

Name of Client: COE - Youngstown

Project Name, City, State: Army Corp of Engineers-Youngstown

Project #: 3079

P.O. #:

Item Number	Date	Time	Sample Number	Number & Size of Containers	Description	RCRA* (crossed out)	F-Li Solvents (TCLP) (crossed out)	Disposal Parameters						Transfer # 1	2	3	4
1	2-22-93	1600	YN-10	1 Qt Jar	Fuel oil			✓									

Trans. #	Item #	Samples Relinquished By	Accepted By	Date	Time
1	1	Steve Order	[illegible]	[illegible]	[illegible]
2					
3					
4					

Fax Results To:
ED Sinkler: 614-351-1556
F. Walker: 312-553-3982

TOTALS

Send hard copy & QA/QC data results to QA/QC Coordinator at MAECORP.

Person Responsible for Samples	Affiliation	Date	Time	Special Instructions (use back of form if necessary - attach photocopies to other pages)
J. Haines	Maecorp	2-23-93	1300	* Rush Turnaround *

REVISED 10/11/89

*RCRA: Corrosivity, Reactivity, Ignitability, EP Tox Metals

ALB-06-CHM-070

Mi[illegible]RP INCORPORATED
155 .[illegible]r Drive, Suite 400
Chicag[illegible]0606
312/372-3300
Attn: QA/QC Coordinator

CHAIN-OF-CUS[illegible]Y RECORD

CHAIN-OF-CUSTODY No C [illegible]8933

RECEIVING ENTITY EHRT

RESPONSE/PROJECT MANAGER [illegible]macher

ENTITY CONTACT/PHONE Christy Music

MAECORP SITE PHONE —

Name of Client: Corps of Engineers

Project Name, City, State: U.S. Army Reserve Center, 645th 399 Miller St. Youngstown, OH. 44507

Project # 3079

P.O. # 800227

Transfer # 1 2 3 4

Item Number	Date	Time	Sample Number	Number & Size of Containers	Description	TCLP RCRA Metals	Paint Solvents (TCLP) Flash Pt	BTEX (8020)	TPH (9071/418.1)	PAH/PNA (8100)	Paint Filter	pH	
1	12/1/92	1518	① South Side	1 qt.	Tank 1 - South wall of cavity			X	X	X			
2	12/1/92	1525	① GW	1 qt.	Tank 1 - groundwater from cavity			X		X			
3	12/4/92	0750	① stockpile	1 qt.	Tank 1 - Stockpiled soil	X	X		X		X	X	
4	12/3/92	1444	② Bottom	"	Tank 2 - Excavation bottom			X	X	X			
5	12/3/92	1635	② North wall	"	Tank 2 - North wall of cavity			X	X	X			
												—	

Trans. #	Item #	Samples Relinquished By	Accepted By	Date	Time
1	1-5	Randy Allemacher	Mitchell Mury	12/4/92	11:30
2	1-5	Mitchell Mury	Carol Cowart	12/5/92	2145
3					
4			Becky Boris	DEC 07 92	900 AM

TOTALS

Send hard copy & QA/QC data results to QA/QC Co-ordinator at MAECORP.

Person Responsible for Samples	Affiliation	Date	Time	Special Instructions (use back of form if necessary - attach photocopies to other pages)
Allemacher	MAECORP	12/4/92	1130	

REVISED 10/11/89

~~RCRA~~ Corrosivity, Reactivity, Ignitability, ~~EP Tox Metals~~

ALB-06-CHM-070

MA[illegible]IP INCORPORATED
155 [illegible]acker Drive, Suite 400
Chicago, IL 60606
312/372-3300
Attn: QA/QC Coordinator

CHAIN-OF-CUS[illegible] RECORD

RECEIVING ENTITY EHRT
ENTITY CONTACT/PHONE Christy Music

CHAIN-OF-CUSTODY Nº C[illegible]8942
RESPONSE/PROJECT MANAGER Randy Olexsachen
MAECORP SITE PHONE

ame of Client: Army Corp Engineers

Project Name, City, State: Army Reserve Center, Youngstown, Ohio

Project # 2079
P.O. # 880331
Transfer # 1 2 3 4

Item umber	Date	Time	Sample Number	Number & Size of Containers	Description	RCRA*	F-List Solvents (TCLP)	[illegible]	[illegible]	Paint Filter	TCLP Metals	TCLP (Barium)
1	11/22	11:30	4-1	1 qt.	Soil From Stockpile			X	X	X	X	X
2	11/22	11:30	4-2	1 qt.	Soil From Stockpile			X	X	X	X	X

ans. #	Item #	Samples Relinquised By	Accepted By	Date	Time
1		James R. Witt Jr.			
2					
3					
4			Becky Bowe	DEC 2 8 '89	1015 hrs

Fax Results to
Ed Sindilar 614-351-1556
Feddy Walker 312-853-3982

TOTALS

Send hard copy & QA/QC data results to QA/QC Co-ordinator at MAECORP.

'erson Responsible for Samples	Affiliation	Date	Time	Special Instructions (use back of form if necessary - attach photocopies to other pages)
James Witt	Maecorp	11/22		

ISED 10/11/89

*RCRA: Corrosivity, Reactivity, Ignitability, EP Tox Metals

ALB-06-CHM-070

A GENERAL INFORMATION

Billing/Broker Name: John Deere
Billing Address:
Customer Contact Person:
[redacted] Name: Marcorp # 2313
777 Harrison Dr.
Columbus
State: Ohio Zip: 43204
Phone # Area Code ( )
USEPA ID #:
Purchase Order No. for Test Sample:

Generator Name (if different): 83rd ARCOM
Pick-up Address:
☐ Check here if same as invoice address
Note: P.O. Box unacceptable for pick-up address
Generator Contact Person: J. HAINES
Facility Name: 83rd ARCOM
Pick-up Address: 399 MILLER ST (P.O. Box unacceptable - must be street address)
City: YOUNGSTOWN
State: OH Zip: 44507
Phone # Area Code (614) 351-1551
USEPA ID #:

B WASTE DESCRIPTION

NAME OF WASTE: FUEL OIL
PROCESS GENERATING WASTE: UST REMOVAL

C GENERAL CHARACTERISTICS (at 70° F unless otherwise specified)

COLOR: BLACK
ODOR: HYDROCARBON ☐ NONE ☐ STRONG ☒ MILD
☒ LIQUID 100 % FREE ☐ SOLID ☐ SLUDGE ☐ POWDER
PHASES: ☒ SINGLE LAYER ☐ DOUBLE LAYER ☐ MULTI - LAYER

D SPECIAL HANDLING INSTRUCTIONS

If special handling techniques are required, i.e. overpacking, specify: NONE
Is a representative sample provided? Yes ☒ No ☐
If no, explain:

E RCRA INFORMATION

Is this a USEPA hazardous waste? ☐ Yes ☒ No
Please give USEPA hazardous waste codes:

F SHIPPING INFORMATION

DOT hazardous material ☐ Yes ☒ No
PROPER SHIPPING NAME:
HAZARD CLASS: ID#: R / Q
ANTICIPATED VOLUME: 2,200 GAL. YDS., LBS.
☐ DRUM (S) ☒ BULK
☒ ONE TIME ☐ WK ☐ MO ☐ YR OTHER
Type and size of container:
WT PER CONTAINER:
WT PER GALLON: 7.5 LBS.

G PHYSICAL CHEMICAL PROPERTIES

1 SPECIFIC GRAVITY
☐ < 0.8 ☐ 1.4 - 1.7
☒ 0.8 - 1.0 ☐ > 1.7
☐ 1.0 - 1.2 ☐ ____ actual
☐ 1.2 - 1.4

2 VISCOSITY (centipoise)
☐ 1 - 100 ☐ ____ actual
☐ 100 - 1000
☐ 1000 - 10,000
☐ > 10,000

3 pH
☐ 2 ☐ > 12.5
☐ 2 - 6 ____ actual
☒ 6 - 8
☐ 8 - 10 ____ constituent
☐ 10 - 12.5

4 BTU's 1000 / lbs.
☐ < 1 ☐ 12 - 16
☐ 1 - 4 ☐ > 16
☐ 4 - 8 ____ actual
☐ 8 - 12

5 FLASH POINT (closed cup)
☐ < 100 F ☐ > 200 F
☐ 100 - 140 F ____ actual
☐ 140 - 200 F

6 HALOGENS (%)
Chlorine ____ Fluorine ____
Bromine ____ Iodine ____
Total ____
NONE

H HAZARDOUS CHARACTERISTICS AND OTHER COMPONENTS

Reactivity: ☒ None ☐ Explosive ☐ Pyrophoric
☐ Shock Sensitive ☐ Water Reactive PCB's ____ (ppm)

I 1 CHEMICAL COMPOSITION (MUST TOTAL 100%) — ORGANIC TCLP COMPONENTS

CODE	REGULATORY LEVEL (ppm)	NAME	%	CODE	REGULATORY LEVEL (ppm)	NAME	%
D018	0.5	Benzene	%	D033	0.5	Hexachlorobutadiene	%
D019	0.5	Carbon Tetrachloride	%	D034	3.0	Hexachloroethane	%
D021	100.0	Chlorobenzene	%	D013	0.4	Lindane	%
D022	6.0	Chloroform	%	D014	10.0	Methoxychlor	%
D023	200.0	o - Cresol	%	D035	200.0	Methyl Ethyl Ketone	%
D024	200.0	m - Cresol	%	D036	2.0	Nitrobenzene	%
D025	200.0	p - Cresol	%	D037	100.0	Pentachlorophenol	%
D026	200.0	Cresol (total)	%	D038	5.0	Pyridine	%
D016	10.0	2, 4 - D	%	D039	0.7	Tetrachloroethylene	%
D027	7.5	1, 4 - Dichlorobenzene	%	D015	0.5	Toxaphene	%
D028	0.5	1, 2 - Dichloroethane	%	D040	0.5	Trichloroethylene	%
D029	0.7	1, 1 - Dichloroethylene	%	D041	400.0	2, 4, 5 - Trichlorophenol	%
D030	0.13	2, 4 - Dinitrotoluene	%	D042	2.0	2, 4, 6 - Trichlorophenol	%
D012	0.02	Endrin	%	D017	1.0	2, 4, 5 - TP (Silvex)	%
D031	0.008	Heptachlor	%	D043	0.2	Vinyl Chloride	%
D032	0.13	Hexachlorobenzene	%				NONE

J METALS ☐ TOTAL (PPM) ☐ TCLP (mg/L)

Arsenic (As) ____ Selenium (Se) ____
Barium (Ba) ____ Silver (Ag) ____
Cadmium (Cd) ____ Copper (Cu) ____
Chromium (Cr) ____ Nickel (Ni) ____
Mercury (Hg) ____ Zinc (Zn) ____
Lead (Pb) ____ NONE

K 2 TCLP REQUIREMENTS

☐ Volatiles ☐ TCLP analysis already performed (Attach results)
☐ Semi-volatiles ☒ Generator's knowledge
☐ Metals (RCRA)
☐ Pesticides/Herbicides
Signature

L OTHER ORGANIC COMPONENTS

NAME ____ % ____
NONE

RECERTIFICATION DATE
CLARK USE ONLY

I HEREBY CERTIFY THAT ALL INFORMATION SUBMITTED IN THIS AND ALL ATTACHED DOCUMENTS IS COMPLETE AND ACCURATE, AND THAT ALL KNOWN OR SUSPECTED HAZARDS HAVE BEEN DISCLOSED.

AUTHORIZED SIGNATURE

March 31, 1993

MAECORP

Mr. J. J. McNamee
Ohio State Fire Marshal
8895 East Main Street
Reynoldsburg, Ohio 43068

RE: Unregulated Tank Removal/Closure Report Under U.S. Army Corps of Engineers Contract No. DACA27-92-D-0029, Remove and Install Underground Storage Tanks, Statewide, Ohio, U.S. Army Reserve Center, Youngstown, Ohio, D.O.# 0006.

This report is to inform you of the completion of removal and closure activities for two underground storage tanks used primarily for heating fuel oil used to heat buildings on-site. The tank was closed and removed in accordance with the State Fire Marshal's Unregulated UST Closure Guidance Document, API 1604 and/or State of Ohio Underground Storage Tank Regulations. Please find included a Table of Contents outlining the sections and information contained in this report.

A review of this information and analytical results indicates that a release did occur. The release was approximately 90 gallons of heating fuel oil which poured from a football size hole in the bottom of the 8,000 gallon tank. Mr. Randy Olhmacher of MAECORP, a certified installer, reported to Mr. Tim Hickin of the Ohio EPA within twenty-four hours and followed by a written notification (see letter in section two of this report). This spill was syphoned from the excavation into fifty-five gallon drums, and visibly contaminated soils were excavated and disposed.

After this was cleaned-up and excavation of both tanks was completed samples were collected from the bottom of the excavations. The results of these samples indicate high levels of TRPH, BTEX and PAH remain below the backfill. This is an unregulated storage tank so no further action has been taken. Indications are that a release has occurred over a long period of time from these USTs. A copy of this report will be sent to Mr. Tim Hickin of the Ohio EPA. Please inform the Army Corps of Engineers, in writing, at the address included in this report, if any further action is required on this site.

If you have any questions contact me at (614)351-1551, or Mr. Kerry Kennedy at (513)255-2977.

Sincerely,

MAECORP, Incorporated

Edward J. Sindelar,
Project Manager

cc: K. Kennedy
T. Hickin, Ohio EPA

MAECORP

February 10, 1993

Mr. Tim Hickin
Ohio EPA
Division of Emergency and Remedial Response
1800 Watermark Drive
P.O. Box 1049
Columbus, Ohio 43266-0149

Re: Release Notification, Underground Storage Tanks
U.S. Army Corps of Engineers Contract #: DACA 27-92-D-0029

Dear Mr. Hickin:

On behalf of the U.S. Army Reserve Center, this letter serves as a written notice of release as required by Ohio Revised Code (ORC) 3750.06 and includes the information required by ORC 3750.06(C) and (D). With this letter the U.S. Army Reserve Center is also requesting written notification as to whether further action is necessary with regard to the releases outlined below.

Information required pursuant to ORC 3750.06(C):

1) The location of release;

U.S. Army Reserve Center
645th Supply Company
399 Miller Street
Youngstown, Ohio 44507-1591
(216) 788-7058

2) The chemical name or identity of any substance involved in the release and whether the substance is an extremely hazardous substance;

Heating Oil - see attached results for specific constituents. The only extremely hazardous substance found was pyrene. Pyrene was detected in soil samples collected from the excavation of a removed 8,000 gallon underground storage tank (UST) in concentrations ranging from non-detect to 4080 ug/kg. Pyrene was detected in a water sample collected from a 1,000 gallon UST excavation at a concentration of 7.8 ug/l.

3) An estimate of the quantity of any substance released into the environment;

Approximately 90 gallons of heating oil was released into the excavation from the 8,000 gallon (UST) during removal. In addition, soils were found to be contaminated with an unknown quantity of heating oil from this tank and the 1,000 gallon fuel oil UST.

4) The time and duration of the release;

Approximately 5 minutes for the 90 gallons on December 2, 1992. Soil contamination appears to be the result of gradual releases over time.

5) The environmental medium or media into which the substance was released;

Ground/soils.

6) Any known or anticipated acute or chronic health risks associated with the release and, if known to the informant, advice regarding medical attention necessary for individuals exposed to the substance released;

No acute or chronic health risks are believed to be associated with the release. A lower explosive limit (LEL) meter and photo-ionization detector (PID) were used to monitor vapors and oxygen levels in the tanks and excavations during removal.

7) Proper precautions to take as a result of the release, including evacuation and other proposed response actions, unless that information is readily available to the community emergency coordinator pursuant to the plan of the district prepared under section 3750.04 of the Revised Code;

The 90 gallons that was released was immediately pumped into drums. Contaminated soils are still being investigated.

8) The name and telephone number of the person or persons to be contacted for further information;

Kerry Kennedy, U.S. Army Corp of Engineers - (513) 255-2977
Ed Sindelar, MAECORP - (614) 351-1551
Captain Young, U.S. Army Reserve Center, 645th Supply Company
(216) 788-7058

9) Such other information as may be required under division (B)(1)(f) of section 3750.02 of the Revised Code.

No additional information is required under division (B)(1)(f) of section 3750.02 of the Revised Code.

Information required pursuant to ORC 3750.06(D):

1) Actions taken to respond to and contain the release;

The 90 gallons that was released was contained in the excavation and immediately pumped into drums.

2) Any known or anticipated acute or chronic health risks associated with the release;

No acute or chronic health risks are believed to be associated with the release. A LEL meter and PID were used to monitor vapors and oxygen levels in the tanks and excavations during removal.

3) Where appropriate, advice regarding medical attention necessary for individuals exposed to the substance released;

No injuries or exposures were reported during the removal.

4) A summary of all actions taken by the owner or operator to prevent a recurrence of the release;

The tanks have been removed.

5) Such other information as is required by rules adopted under division (B)(1)(f) of section 3750.02 of the Revised Code.

No additional information is required under division (B)(1)(f) of section 3750.02 of the Revised Code.

If there are any questions or if you require further information please contact me at (614) 351-1551 or Mr. Kerry Kennedy at (614) 692-2784.

Sincerely,

MAECORP Incorporated

Edward J. Sindelar
Project Manager

pc: LEPC
Youngstown Fire Department
Kerry Kennedy, U.S. Army COE

APPENDIX
E

APPENDIX E

ASBESTOS REPORTS

Environmental Industrial Hygiene Occupational Safety

Diamond Environmental

P.O. Box 2543 • Stow, Ohio 44224 • (330) 686-5996

Lead Paint and Asbestos Bulk Survey :

March 9, 2000

U.S. Army Corps of Engineers

Miller Road

Youngstown, Ohio

Environmental Industrial Hygiene Occupational Safety

Diamond Environmental

P.O. Box 2543 • Stow, Ohio 44224 • (330) 686-5996

Table of Contents

Diamond Environmental

P.O. Box 2543 • Stow, Ohio 44224 • (330) 686-5996

Section I

Report and Recommendations

Environmental Industrial Hygiene Occupational Safety

Diamond Environmental

P.O. Box 2543 • Stow, Ohio 44224 • (330) 686-5996

March 9, 2000

Mr. Bill Scoville
IT Corporation
11499 Chester Rd.
Cincinnati, Ohio 45246

RE: Bulk Sampling for Lead and Asbestos
Diamond # 000068

Dear Mr. Scoville:

Description of Work

Diamond Environmental, LLC. Stow, Ohio was contracted by IT Corporation to conduct analysis for lead and asbestos in conjunction with a project at SSG Gus Kefert U.S. Army Reserve Center, Youngstown, Ohio. Bulk sampling was conducted by Mr. Keith Bickel, CHMM, REP, CAHES of Diamond Environmental on February 24 and 25, 2000.

Sampling

The project consisted of obtaining thirty-three (33) bulk samples and eleven (11) paint chip samples. The paint chips were analyzed for lead and the bulk samples were analyzed for asbestos.

Sampling Analysis for Asbestos

The asbestos bulk samples were analyzed utilizing the current "EPA Method for the Determination of Asbestos in Bulk Building Materials," EPA 600/R-93/116, July 1993. The Laboratory is accredited by the National Voluntary Laboratory Accreditation.

Sampling Analysis for Lead

The samples were analyzed by flame absorption to determine concentrations of lead for interior surfaces. Under both the hazard screen risk assessment criteria, paint which contains more than 5000 milligrams per kilogram (mg/kg) or .5% lead is considered lead-based paint for hazardous disposal. The Laboratory is accredited by the National Voluntary Laboratory Accreditation. The paint chip samples' highest concentration was determined to contain **0.258% lead. The samples were BELOW the .5% limit and may be disposed of by normal means.**

Recommendations

Any asbestos containing building material and lead containing paints should be performed by a licensed contractor.
OSHA air monitoring must be performed during any asbestos abatement and lead containing paint (no matter what the lead concentration).

Environmental Industrial Hygiene Occupational Safety

Diamond Environmental

P.O. Box 2543 • Stow, Ohio 44224 • (330) 686-5996

For specific information regarding sampling locations and results, please refer to the enclosed sampling sheets, maps, and total footage. If you require any further information, please contact the undersigned. Thank you for consulting Diamond Environmental, LLC.

Sincerely,

Diamond Environmental, LLC.

Keith R Bickel

Keith R. Bickel, CHMM, REP, CAHES
Project Manager

Diamond Environmental

P.O. Box 2543 • Stow, Ohio 44224 • (330) 686-5996

Section II

Lead Paint and Asbestos Bulk Sampling Sheets

Diamond Environmental

P.O. Box 2543 • Stow, Ohio 44224 • (330) 686-5996

LEAD PAINT SAMPLING SHEET

Client: It Corp
Project: Army Corp. of Engineers – Youngstown, OH
Work Order: 000068

Sampling Date: 2/24/2000
Hygienist: Keith R. Bickel

Lab Number	Sample Number	Material	Functional Space	Analysis
100089	02242000 -01pb	White paint	South Basement Stairwell White with yellow undercoat	**ND**
100090	02242000 -02pb	Cream paint	Bay walls	**ND**
100091	02242000 -03pb	Cream paint	Roof Rooms	**0.025% LEAD**
100092	02242000 -04pb	Green paint	Men's Changing Room Walls	**0.250% LEAD**
100093	02242000 -05pb	Cream paint	Vault Room P	**ND**
100094	02242000 -06pb	White paint	Ceiling Room A3	**ND**
100095	02242000 -07pb	Yellow paint	Boiler Room Wall	**0.052% LEAD**
100096	02242000 -08pb	White paint	Caged Storage Room Wall	**0.028% LEAD**
100097	02242000 -09pb	White paint	Caged Area Wall	**ND**
100098	02242000 -10pb	White paint	Caged Area Ceiling	**ND**
100099	02242000 -11pb	White paint	1st Floor Stairwell (North)	**ND**

Environmental Industrial Hygiene Occupational Safety

Diamond Environmental

P.O. Box 2543 • Stow, Ohio 44224 • (330) 686-5996

ASBESTOS BULK SAMPLING SHEET

Client: IT Corporation
Project: Army Corp. of Engineers – Youngstown, OH
Work Order: 000068

Sampling Date: 2/24/2000 and 2/25/2000
Hygienist: Keith R. Bickel

Lab Number	Sample Number	Material	Functional Space	FRI/ NON	Cond.	Analysis
100054	02242000 -02 asb1	Ceiling tile	First Floor Room A	NON	Good	Cellulose 10% No Asbestos Fibers Detected
100055	02242000 -02 asb2	Ceiling drywall	First Floor Room G	NON	Good	Cellulose 10% No Asbestos Fibers Detected
100056	02242000 -02 asb3	Ceiling drywall	First Floor Room -Kitchen	NON	Good	Cellulose 10% No Asbestos Fibers Detected
100057	02242000 -03 asb1	Wall drywall	First Floor Room A	NON	Good	Cellulose 30% No Asbestos Fibers Detected
100058	02242000 -03 asb2	Wall drywall	First Floor Room Kitchen	NON	Good	Cellulose 30% No Asbestos Fibers Detected
100059	02242000 -03 asb3	Wall drywall	First Floor Room G	NON	Good	Cellulose 30% No Asbestos Fibers Detected
100060	02242000 -04 asb1	Floor tile	First Floor- Room G Cream Floor Tile	NON	Good	Cellulose <1% No Asbestos Fibers Detected
		Black Mastic	First Floor- Room G Cream Floor Tile	NON	Good	**Chrysotile Asbestos 5%**
100061	02242000 -04 asb2	Floor tile	First Floor- Room I Cream Floor Tile	NON	Good	Cellulose <1% No Asbestos Fibers Detected
		Black Mastic	First Floor- Room I Cream Floor Tile	NON	Good	**Chrysotile Asbestos 5%**
100062	02242000 -04 asb3	Floor tile	First Floor- Room I Cream Floor Tile	NON	Good	Cellulose <1% No Asbestos Fibers Detected
		Black Mastic	First Floor- Room I Cream Floor Tile	NON	Good	**Chrysotile Asbestos 5%**
100063	02242000 -06 asb1	Ceiling tile	First Floor – Room O	FRI	Good	Fiberglass 95% No Asbestos Fibers Detected
100064	02242000 -06 asb2	Ceiling tile	First Floor – Room O	FRI	Good	Fiberglass 95% No Asbestos Fibers Detected
100065	02242000 -06 asb3	Ceiling tile	First Floor – Room W	FRI	Good	Fiberglass 95% No Asbestos Fibers Detected
100066	02242000 -08 asb1	Duct insulation	Second Floor Room Y	FRI	Good	Fiberglass 90%,Cellulose 5% No Asbestos Fibers Detected
100067	02242000 -08 asb2	Duct insulation	Second Floor room Y	FRI	Good	Fiberglass 90%,Cellulose 5% No Asbestos Fibers Detected
100068	02242000 -08 asb3	Duct insulation	Second Floor room Y	FRI	Good	Fiberglass 90%,Cellulose 5% No Asbestos Fibers Detected
100069	02252000 -09 asb1	Wall drywall	Basement Room A3	NON	Good	Cellulose 20% No Asbestos Fibers Detected
100070	02252000 -09 asb2	Wall drywall	Basement- Room A4	NON	Good	Cellulose 20% No Asbestos Fibers Detected
100071	02252000 -09 asb3	Wall drywall	Basement- Room A5	NON	Good	Cellulose 20% No Asbestos Fibers Detected

Environmental Industrial Hygiene Occupational Safety

Diamond Environmental

P.O. Box 2543 • Stow, Ohio 44224 • (330) 686-5996

ASBESTOS BULK SAMPLING SHEET

Client: IT Corporation
Project: Army Corp of Engineers – Youngstown Ohio
Work Order: 000 068

Sampling Date: 2/24/00
Hygienist: Keith R. Bickel

Lab Number	Sample Number	Material	Functional Space	FRI/ NON	Cond.	Analysis
100072	02252000 -10 asb1	Insulation	Furnace-side Basement	FRI	Good	Fiberglass 80% No Asbestos Fibers Detected
100073	02252000 -10 asb2	Insulation	Furnace-side Basement	FRI	Good	Fiberglass 80% No Asbestos Fibers Detected
100074	02252000 -10 asb3	Insulation	Furnace-side Basement	FRI	Good	Fiberglass 80% No Asbestos Fibers Detected
100075	02252000 -11 asb1	Ceiling tile	Basement- Range Storage Room on Wall (A6)	FRI	Good	Cellulose 100% No Asbestos Fibers Detected
100076	02252000 -11 asb2	Ceiling tile	Basement- Range Storage Room on Wall (A6)	FRI	Good	Cellulose 100% No Asbestos Fibers Detected
100077	02252000 -11 asb3	Ceiling tile	Basement- Range Storage Room on Wall (A6)	FRI	Good	Cellulose 100% No Asbestos Fibers Detected
100078	02252000 -12 asb1	Ceiling tile	Basement- Range Storage Room Ceiling (A6)	FRI	Good	Fiberglass 70%, Cellulose 20% **Wollastonite 5%** ***No Asbestos Fibers Detected***
100079	02252000 -12 asb2	Ceiling tile	Basement- Range Storage Room Ceiling (A6)	FRI	Good	Fiberglass 70%, Cellulose 20% **Wollastonite 5%** **No Asbestos Fibers Detected**
100080	02252000 -12 asb3	Ceiling tile	Basement- Range Storage Room Ceiling (A6)	FRI	Good	Fiberglass 70%, Cellulose 20% **Wollastonite 5%** **No Asbestos Fibers Detected**
100081	02252000 -13 asb1	Vibration dampner	Gun Range HVAC	FRI	Good	Synthetics 65% No Asbestos Fibers Detected
100082	02252000 -13 asb2	Vibration dampner	Gun Range HVAC	FRI	Good	Synthetics 65% No Asbestos Fibers Detected
100083	02252000 -13 asb3	Vibration dampner	Gun Range HVAC	FRI	Good	Synthetics 65% No Asbestos Fibers Detected
100084*	02252000 -14 asb1	Duct insulation	Gun Range HVAC	FRI	Good	**Chrysotile Asbestos 10%** Cellulose 70%
100085*	02252000 -14 asb2	Duct insulation	Gun Range HVAC	FRI	Good	**Chrysotile Asbestos 10%** Cellulose 70%
100086*	02252000 -14 asb3	Duct insulation	Gun Range HVAC	FRI	Good	**Chrysotile Asbestos 10%** Cellulose 70%

*** Outer tan wrap contains 40% Chrysotile Asbestos : samples 10% overall**

Diamond Environmental

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Section III

White Mag Pipe Insulation

Diamond Environmental

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White Mag Pipe Insulation

Location	Lineal Feet
Room A	64
Room B	36
Room C	23
Room D	38
Room E	30
Men's Restroom	28
Men's Changing Room	20
Women's Restroom	27
Kitchen	66
Room F	169
Room G	32
Room H	20
Room I	48
Room J	27
Room K	16
Hallway	51
Room L	107
Room M	78
Room N	21
Room O	13
Room P	81
Stairwell	13
Rooms Q, R, S, T	149
Room U	73
Room V	44
Hallway	6
Room W	13
Bay	350
Room X	19
Room Y	63
Room Z	19
Room A1 and Hallway	25
Room AZ	60

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Boiler Room	266
Basement Stairwell	50
Room A3	103
Room A4	128
Room A5	116
HWT and Hallway	29
Restroom	156
Shower	110
Caged Storage Area	498
Basement stairwell	25
Room A6	11
Gun Range	416
Total	**3,737 LF**

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Section IV

Bulk Survey Tables by Area

Diamond Environmental, LLC.

Floor: First

Room # / Description: Room A

Dimensions: 16' x 18'8"

ASBESTOS

Sampling Company	Material	Material Description	Lineal Foot Square Foot	Asbestos Type	%	Correlating Sample ID
Other	Pipe Insulation	White mag pipe	64 LF	**Chrysotile Asbestos** **Amosite Asbestos**	**2** **40**	
Diamond	Wall Drywall	Tan board		NAFD		-03 asb
Diamond	Ceiling Drywall	Tan board		NAFD		-02 asb
	Ceiling Tile	N/A				
Other	Floor Tile	Black 9 x 9	299 SF	**Chrysotile Asbestos**	**10**	

LEAD

Sampling Company	Material	Color	Lead %	Correlating Sample ID
Diamond	Ceiling Paint	Cream	0.025	03 pb
Diamond	Wall Paint	White	ND	01 pb

Diamond Environmental, LLC.

Floor: First

Room # / Description: Room B

Dimensions: 18'8" x 11'9"

ASBESTOS

Sampling Company	Material	Material Description	Lineal Foot Square Foot	Asbestos Type	%	Correlating Sample ID
Other	Pipe Insulation	White mag pipe	36 LF	**Chrysotile Asbestos**		
Diamond	Wall Drywall	Tan board		NAFD		-03 asb
Diamond	Ceiling Drywall	Tan board		NAFD		-02 asb
	Ceiling Tile	N/A				
Other	Floor Tile	Black 9 x 9	299 SF	**Chrysotile Asbestos**	**10**	

LEAD

Sampling Company	Material	Color	Lead %	Correlating Sample ID
Diamond	Ceiling Paint	Cream	0.025	03 pb
Diamond	Wall Paint	White	ND	01 pb

Diamond Environmental, LLC.

Floor: First

Room # / Description: Room C

Dimensions: 10' x 16'

ASBESTOS

Sampling Company	Material	Material Description	Lineal Foot Square Foot	Asbestos Type	%	Correlating Sample ID
Other	Pipe Insulation	White mag pipe	23 LF	**Chrysotile Asbestos** **Amosite Asbestos**	**2** **40**	
Diamond	Wall Drywall	Tan board		NAFD		-03 asb
Diamond	Ceiling Drywall	Tan board		NAFD		-02 asb
	Ceiling Tile	N/A				
Other	Floor Tile	Black 9 x 9	160 F	**Chrysotile Asbestos**	**10**	

LEAD

Sampling Company	Material	Color	Lead %	Correlating Sample ID
Diamond	Ceiling Paint	Cream	0.025	03 pb
Diamond	Wall Paint	White	ND	07 pb

Diamond Environmental, LLC.

Floor: First

Room # / Description: Room D

Dimensions: 13'6" x 16'

ASBESTOS

Sampling Company	Material	Material Description	Lineal Foot Square Foot	Asbestos Type	%	Correlating Sample ID
Other	Pipe Insulation	White mag pipe	38 LF	**Chrysotile Asbestos** **Amosite Asbestos**	**2** **40**	
Diamond	Wall Drywall	Tan board		NAFD		-03 asb
Diamond	Ceiling Drywall	Tan board		NAFD		-02 asb
	Ceiling Tile	N/A				
Other	Floor Tile	Black 9 x 9	216 SF	**Chrysotile Asbestos**	**10**	

LEAD

Sampling Company	Material	Color	Lead %	Correlating Sample ID
Diamond	Ceiling Paint	Cream	0.025	03 pb
Diamond	Wall Paint	White	ND	07 pb

Diamond Environmental, LLC.

Floor: First

Room # / Description: Room E

Dimensions: 13' x 16'

ASBESTOS

Sampling Company	Material	Material Description	Lineal Foot Square Foot	Asbestos Type	%	Correlating Sample ID
Other	Pipe Insulation	White mag pipe	30LF	**Chrysotile Asbestos** **Amosite Asbestos**	**2** **40**	
Diamond	Wall Drywall	Tan board		NAFD		-03 asb
Diamond	Ceiling Drywall	Tan board		NAFD		-02 asb
	Ceiling Tile	N/A				
Other	Floor Tile	Black 9 x 9	209 SQ	**Chrysotile Asbestos**	**10**	

LEAD

Sampling Company	Material	Color	Lead %	Correlating Sample ID
Diamond	Ceiling Paint	Cream	0.025	03 pb
Diamond	Wall Paint	White	ND	07 pb

Diamond Environmental, LLC.

Floor: First

Room # / Description: Men's Changing Room

ASBESTOS

Sampling Company	Material	Material Description	Lineal Foot Square Foot	Asbestos Type	%	Correlating Sample ID
Other	Pipe Insulation	White mag pipe	28 LF	**Chrysotile Asbestos** **Amosite Asbestos**	**2** **40**	
	Wall Drywall	N/A				
Diamond	Ceiling Drywall	Tan board		NAFD		-02 asb
	Ceiling Tile	N/A				
	Floor Tile	Cement				

LEAD

Sampling Company	Material	Color	Lead %	Correlating Sample ID
Diamond	Ceiling Paint	Cream	ND	05 pb
Diamond	Wall Paint	Green	0.250	04 pb

Diamond Environmental, LLC.

Floor: First

Room # / Description: Men's Restroom

ASBESTOS

Sampling Company	Material	Material Description	Lineal Foot Square Foot	Asbestos Type	%	Correlating Sample ID
Other	Pipe Insulation	White mag pipe	20 LF	**Chrysotile Asbestos** **Amosite Asbestos**	**2** **40**	
	Wall Drywall	N/A				
Diamond	Ceiling Drywall	Tan board		NAFD		-02 asb
	Ceiling Tile	N/A				
	Floor Tile	Ceramic				

LEAD

Sampling Company	Material	Color	Lead %	Correlating Sample ID
Diamond	Ceiling Paint	Cream	ND	05 pb
	Wall Paint	porcelain		

Diamond Environmental, LLC.

Floor: First

Room # / Description: Women's Restroom

ASBESTOS

Sampling Company	Material	Material Description	Lineal Foot Square Foot	Asbestos Type	%	Correlating Sample ID
Other	Pipe Insulation	White mag pipe	27 LF	**Chrysotile Asbestos** **Amosite Asbestos**	**2** **40**	
	Wall Drywall	N/A				
Diamond	Ceiling Drywall	Tan board		NAFD		-02 asb
	Ceiling Tile	N/A				
	Floor Tile	Cement				

LEAD

Sampling Company	Material	Color	Lead %	Correlating Sample ID
Diamond	Ceiling Paint	Cream	ND	05 pb
	Wall Paint	Porcelain		

Diamond Environmental, LLC.

Floor: First

Room # / Description: Kitchen

Dimensions: 20' x 14'

ASBESTOS

Sampling Company	Material	Material Description	Lineal Foot Square Foot	Asbestos Type	%	Correlating Sample ID
Other	Pipe Insulation	White mag pipe	66 LF	**Chrysotile Asbestos** **Amosite Asbestos**	**2** **40**	
	Wall Drywall	N/A				
Diamond	Ceiling Drywall	Tan board		NAFD		-02 asb
	Ceiling Tile	N/A				
Other	Floor Tile	Black 9' x 9'	280 LF	**Chrysotile Asbestos**	**10**	

LEAD

Sampling Company	Material	Color	Lead %	Correlating Sample ID
Diamond	Ceiling Paint	Cream	ND	05 pb
Diamond	Wall Paint	Green	0.250	04 pb

Diamond Environmental, LLC.

Floor: First

Room # / Description: Room F

Dimensions: 31' x 19'

ASBESTOS

Sampling Company	Material	Material Description	Lineal Foot Square Foot	Asbestos Type	%	Correlating Sample ID
Other	Pipe Insulation	White mag pipe	158 LF	**Chrysotile Asbestos** **Amosite Asbestos**	**2** **40**	
	Wall Drywall	N/A				
Diamond	Ceiling Drywall	Tan board		NAFD		-02 asb
	Ceiling Tile	N/A				
	Floor Tile	Ceramic				
Other	Pipe insulation	Aircell	11 LF	**Chrysotile Asbestos**	**35**	

LEAD

Sampling Company	Material	Color	Lead %	Correlating Sample ID
Diamond	Ceiling Paint	White	ND	01 pb
Diamond	Wall Paint	White	ND	06 pb

Diamond Environmental, LLC.

Floor: First

Room # / Description: Room G

Dimensions: 12' x 10'

ASBESTOS

Sampling Company	Material	Material Description	Lineal Foot Square Foot	Asbestos Type	%	Correlating Sample ID
Other	Pipe Insulation	White mag pipe	20 LF	**Chrysotile Asbestos** **Amosite Asbestos**	**2** **40**	
Diamond	Wall Drywall	Tan Board		NAFD		-03 asb
Diamond	Ceiling Drywall	Tan board		NAFD		-02 asb
	Ceiling Tile	N/A				
Diamond	Floor Tile	Cream 12' x12"	120 SF	NAFD		-04 asb
Diamond	Floor tile mastic	Black	120 SF	**Chrysotile Asbestos**	**5**	-04 asb
Other	Pipe Insulation	Tan	12 LF	**Chrysotile Asbestos**	**35**	

LEAD

Sampling Company	Material	Color	Lead %	Correlating Sample ID
Diamond	Ceiling Paint	Cream	ND	05 pb
Diamond	Wall Paint	Cream	ND	05 pb

Diamond Environmental, LLC.

Floor: First

Room # / Description: Room H

Dimensions: 12' x 10'

ASBESTOS

Sampling Company	Material	Material Description	Lineal Foot Square Foot	Asbestos Type	%	Correlating Sample ID
Other	Pipe Insulation	White mag pipe	20 LF	**Chrysotile Asbestos** **Amosite Asbestos**	**2** **40**	
Diamond	Wall Drywall	Tan Board		NAFD		-03 asb
Diamond	Ceiling Drywall	Tan board		NAFD		-02 asb
	Ceiling Tile	N/A				
Diamond	Floor Tile	Cream 12' x12"	120 SF	NAFD		-04 asb
Diamond	Floor tile mastic	Black	120 SF	**Chrysotile Asbestos**	**5**	-04 asb

LEAD

Sampling Company	Material	Color	Lead %	Correlating Sample ID
Diamond	Ceiling Paint	Cream	ND	05 pb
Diamond	Wall Paint	Cream	ND	05 pb

Diamond Environmental, LLC.

Floor: First

Room # / Description: Room I

Dimensions: 12' x 10'

ASBESTOS

Sampling Company	Material	Material Description	Lineal Foot Square Foot	Asbestos Type	%	Correlating Sample ID
Other	Pipe Insulation	White mag pipe	48 LF	**Chrysotile Asbestos** **Amosite Asbestos**	**2** **40**	
Diamond	Wall Drywall	Tan Board		NAFD		-03 asb
Diamond	Ceiling Drywall	Tan board		NAFD		-02 asb
	Ceiling Tile	N/A				
Diamond	Floor Tile	Cream 12' x12"	120 SF	NAFD		-04 asb
Diamond	Floor tile mastic	Black	120 SF	**Chrysotile Asbestos**	**5**	-04 asb

LEAD

Sampling Company	Material	Color	Lead %	Correlating Sample ID
Diamond	Ceiling Paint	Cream	ND	05 pb
Diamond	Wall Paint	Cream	ND	05 pb

Diamond Environmental, LLC.

Floor: First

Room # / Description: Room J

Dimensions: 12' x 10'

ASBESTOS

Sampling Company	Material	Material Description	Lineal Foot Square Foot	Asbestos Type	%	Correlating Sample ID
Other	Pipe Insulation	White mag pipe	27 LF	**Chrysotile Asbestos** **Amosite Asbestos**	**2** **40**	
Diamond	Wall Drywall	Tan Board		NAFD		-03 asb
Diamond	Ceiling Drywall	Tan board		NAFD		-02 asb
	Ceiling Tile	N/A				
Diamond	Floor Tile	Cream 12' x12"	120 SF	NAFD		-04 asb
Diamond	Floor Tile Mastic	Black	120 SF	**Chrysotile Asbestos**	5	-04 asb

LEAD

Sampling Company	Material	Color	Lead %	Correlating Sample ID
Diamond	Ceiling Paint	Cream	ND	05 pb
Diamond	Wall Paint	Cream	ND	05 pb

Diamond Environmental, LLC.

Floor: First

Room # / Description: Room K

Dimensions: 12' x 10'

ASBESTOS

Sampling Company	Material	Material Description	Lineal Foot Square Foot	Asbestos Type	%	Correlating Sample ID
Other	Pipe Insulation	White mag pipe	16 LF	**Chrysotile Asbestos** **Amosite Asbestos**	**2** **40**	
Diamond	Wall Drywall	Tan Board		NAFD		-03 asb
Diamond	Ceiling Drywall	Tan board		NAFD		-02 asb
	Ceiling Tile	N/A				
Diamond	Floor Tile	Cream 12' x12"	120 SF	NAFD		-04 asb
Diamond	Floor tile mastic	Black	120 SF	**Chrysotile Asbestos**	**5**	-04 asb

LEAD

Sampling Company	Material	Color	Lead %	Correlating Sample ID
Diamond	Ceiling Paint	Cream	ND	05 pb
Diamond	Wall Paint	Cream	ND	05 pb

Diamond Environmental, LLC.

Floor: First

Room # / Description: Exterior Hallway for Rooms F-K

Dimensions: 5'x 50'

ASBESTOS

Sampling Company	Material	Material Description	Lineal Foot Square Foot	Asbestos Type	%	Correlating Sample ID
Other	Pipe Insulation	White mag pipe	3 LF	**Chrysotile Asbestos** **Amosite Asbestos**	**2** **40**	
Diamond	Wall Drywall	Tan Board		NAFD		-03 asb
Diamond	Ceiling Drywall	Tan board		NAFD		-02 asb
	Ceiling Tile	N/A				
	Floor Tile	N/A				
Other	Pipe Insulation	Aircell	48 LF	**Chrysotile Asbestos**	**35**	

LEAD

Sampling Company	Material	Color	Lead %	Correlating Sample ID
Diamond	Ceiling Paint	Cream	ND	05 pb
Diamond	Wall Paint	Cream	ND	05 pb

Diamond Environmental, LLC.

Floor: First

Room # / Description: Room L

Dimensions: 40' x 16'

ASBESTOS

Sampling Company	Material	Material Description	Lineal Foot Square Foot	Asbestos Type	%	Correlating Sample ID
Other	Pipe Insulation	White mag pipe	107 LF	**Chrysotile Asbestos** **Amosite Asbestos**	**2** **40**	
Diamond	Wall Drywall	Tan Board		NAFD		-03 asb
Diamond	Ceiling Drywall	Tan board		NAFD		-02 asb
	Ceiling Tile	N/A				
	Floor Tile	N/A				

LEAD

Sampling Company	Material	Color	Lead %	Correlating Sample ID
Diamond	Ceiling Paint	Cream	ND	05 pb
Diamond	Wall Paint	Cream	ND	05 pb

Diamond Environmental, LLC.

Floor: First

Room # / Description: Room M

Dimensions: 16' x 27'

ASBESTOS

Sampling Company	Material	Material Description	Lineal Foot Square Foot	Asbestos Type	%	Correlating Sample ID
Other	Pipe Insulation	White mag pipe	78 LF	**Chrysotile Asbestos** **Amosite Asbestos**	**2** **40**	
	Wall Drywall	N/A				
Diamond	Ceiling Drywall	Tan board		NAFD		-02 asb
	Ceiling Tile	N/A				
Other	Floor Tile	Maroon 9" x9"	432 SF	**Chrysotile Asbestos**	**10**	

LEAD

Sampling Company	Material	Color	Lead %	Correlating Sample ID
Diamond	Ceiling Paint	Cream	0.025	03 pb
Diamond	Wall Paint	Cream / green	0.250	04 pb

Diamond Environmental, LLC.

Floor: First

Room # / Description: Room N (Vault)

ASBESTOS

Sampling Company	Material	Material Description	Lineal Foot Square Foot	Asbestos Type	%	Correlating Sample ID
Other	Pipe Insulation	White mag pipe	20.5 LF	**Chrysotile Asbestos** **Amosite Asbestos**	**2** **40**	
	Wall Drywall	N/A				
	Ceiling Drywall	N/A				
	Ceiling Tile	N/A				
	Floor Tile	N/A				

LEAD

Sampling Company	Material	Color	Lead %	Correlating Sample ID
Diamond	Ceiling Paint	Cream	ND	05 pb
Diamond	Wall Paint	Cream	ND	05 pb

Diamond Environmental, LLC.

Floor: First

Room # / Description: Room O

Dimensions: 23" x 14'

ASBESTOS

Sampling Company	Material	Material Description	Lineal Foot Square Foot	Asbestos Type	%	Correlating Sample ID
Other	Pipe Insulation	White mag pipe	13 LF	**Chrysotile Asbestos** **Amosite Asbestos**	**2** **40**	
	Wall Drywall	Tan Board				
	Ceiling Drywall	Tan board				
Diamond	Ceiling Tile	1' x 2' white		NAFD		-07 asb
Other	Floor Tile	9" x9"	322 SF	**Chrysotile Asbestos**	**12**	

LEAD

Sampling Company	Material	Color	Lead %	Correlating Sample ID
	Ceiling Paint	N/A		
Diamond	Wall Paint	White	ND	06 pb

Diamond Environmental, LLC.

Floor: First

Room # / Description: Room P (Vault)

ASBESTOS

Sampling Company	Material	Material Description	Lineal Foot Square Foot	Asbestos Type	%	Correlating Sample ID
Other	Pipe Insulation	White mag pipe	81 LF	**Chrysotile Asbestos** **Amosite Asbestos**	**2** **40**	
	Wall Drywall	N/A				
	Ceiling Drywall	N/A				
	Ceiling Tile	N/A				
	Floor Tile	N/A				

***Concrete walls, ceiling, and floor**

LEAD

Sampling Company	Material	Color	Lead %	Correlating Sample ID
Diamond	Ceiling Paint	Cream	ND	05 pb
Diamond	Wall Paint	Cream	ND	05 pb

Diamond Environmental, LLC.

Floor: First and Second Floor, Basement

Room # / Description: North Stairwell

ASBESTOS

Sampling Company	Material	Material Description	Lineal Foot Square Foot	Asbestos Type	%	Correlating Sample ID
Other	Pipe Insulation	White mag pipe	13 LF	**Chrysotile Asbestos** **Amosite Asbestos**	**2** **40**	
	Wall Drywall	N/A				
	Ceiling Drywall	N/A				
	Ceiling Tile	N/A				
	Floor Tile	N/A				

LEAD

Sampling Company	Material	Color	Lead %	Correlating Sample ID
Diamond	Ceiling Paint	Cream	ND	05 pb
Diamond	Wall Paint	Cream	ND	05 pb

Diamond Environmental, LLC.

Floor: First

Room # / Description: Q, R, S, T (Vaults North Side)

ASBESTOS

Sampling Company	Material	Material Description	Lineal Foot Square Foot	Asbestos Type	%	Correlating Sample ID
Other	Pipe Insulation	White mag pipe	149 LF	**Chrysotile Asbestos** **Amosite Asbestos**	**2** **40**	
	Wall Drywall	N/A				
	Ceiling Drywall	N/A				
	Ceiling Tile	N/A				
	Floor Tile	N/A				

***Concrete walls, ceiling, and floor**

LEAD

Sampling Company	Material	Color	Lead %	Correlating Sample ID
Diamond	Ceiling Paint	Cream	ND	05 pb
Diamond	Wall Paint	White	ND	06 pb

Diamond Environmental, LLC.

Floor: First

Room # / Description: Room U

Dimensions: 25' x 19'

ASBESTOS

Sampling Company	Material	Material Description	Lineal Foot Square Foot	Asbestos Type	%	Correlating Sample ID
Other	Pipe Insulation	White mag pipe	73 LF	**Chrysotile Asbestos** **Amosite Asbestos**	**2** **40**	
	Wall Drywall	N/A				
	Ceiling Drywall	N/A				
	Ceiling Tile	N/A				
Other	Floor Tile	9" x9" black	475 SF	**Chrysotile Asbestos**	**10**	

LEAD

Sampling Company	Material	Color	Lead %	Correlating Sample ID
Diamond	Ceiling Paint	Cream	ND	05 pb
Diamond	Wall Paint	White	ND	06 pb

Diamond Environmental, LLC.

Floor: First

Room # / Description: Room V
Dimensions: 16 x 21'

ASBESTOS

Sampling Company	Material	Material Description	Lineal Foot Square Foot	Asbestos Type	%	Correlating Sample ID
Other	Pipe Insulation	White mag pipe	44 LF	**Chrysotile Asbestos** **Amosite Asbestos**	**2** **40**	
	Wall Drywall	N/A				
Diamond	Ceiling Drywall	Tan board		NAFD		-02 asb
	Ceiling Tile	N/A				
Other	Floor Tile	9" x9" Black	336 SF	**Chrysotile Asbestos**	**10**	

LEAD

Sampling Company	Material	Color	Lead %	Correlating Sample ID
Diamond	Ceiling Paint	Cream	ND	05 pb
Diamond	Wall Paint	White	ND	06 pb

Diamond Environmental, LLC.

Floor: First

Room # / Description: North Hallway

ASBESTOS

Sampling Company	Material	Material Description	Lineal Foot Square Foot	Asbestos Type	%	Correlating Sample ID
Other	Pipe Insulation	White mag pipe	6 LF	**Chrysotile Asbestos** **Amosite Asbestos**	**2** **40**	
	Wall Drywall	N/A				
Diamond	Ceiling Drywall	Tan board		NAFD		-02 asb
	Ceiling Tile	N/A				
	Floor Tile	N/A				

LEAD

Sampling Company	Material	Color	Lead %	Correlating Sample ID
Diamond	Ceiling Paint	Cream	ND	05 pb
Diamond	Wall Paint	White	ND	06 pb

Diamond Environmental, LLC.

Floor: First

Room # / Description: Room W

ASBESTOS

Sampling Company	Material	Material Description	Lineal Foot Square Foot	Asbestos Type	%	Correlating Sample ID
Other	Pipe Insulation	White mag pipe	13 LF	**Chrysotile Asbestos** **Amosite Asbestos**	**2** **40**	
	Wall Drywall	N/A				
	Ceiling Drywall	N/A				
Diamond	Ceiling Tile	1' x 2' white		NAFD		-07 asb
Other	Floor Tile	9" x9" Tan	372 SF	**Chrysotile Asbestos**	**12**	

LEAD

Sampling Company	Material	Color	Lead %	Correlating Sample ID
	Ceiling Paint	N/A		
Diamond	Wall Paint	White	ND	06 pb

Diamond Environmental, LLC.

Floor: First

Room # / Description: Bay

ASBESTOS

Sampling Company	Material	Material Description	Lineal Foot Square Foot	Asbestos Type	%	Correlating Sample ID
Other	Pipe Insulation	White mag pipe	350 LF	**Chrysotile Asbestos** **Amosite Asbestos**	**2** **40**	
	Wall Drywall	N/A				
	Ceiling Drywall	N/A				
	Ceiling Tile	N/A				
	Floor Tile	N/A				

LEAD

Sampling Company	Material	Color	Lead %	Correlating Sample ID
Diamond	Ceiling Paint	Cream	ND	02 pb
Diamond	Wall Paint	Cream	ND	02 pb

Diamond Environmental, LLC.

Floor: Second

Room # / Description: Room X
Dimensions: 19' x 20.5'

ASBESTOS

Sampling Company	Material	Material Description	Lineal Foot Square Foot	Asbestos Type	%	Correlating Sample ID
Other	Pipe Insulation	White mag pipe	19 LF	**Chrysotile Asbestos** **Amosite Asbestos**	**2** **40**	
Diamond	Wall Drywall	Tan board		NAFD		-03 asb
Diamond	Ceiling Drywall	Tan board		NAFD		-02 asb
	Ceiling Tile	N/A				
Other	Floor Tile	Gray 9" x9"	389.5 SF	**Chrysotile Asbestos**	**12**	

LEAD

Sampling Company	Material	Color	Lead %	Correlating Sample ID
Diamond	Ceiling Paint	Cream	0.025	03 pb
Diamond	Wall Paint	White	0.250	04 pb

Diamond Environmental, LLC.

Floor: Second

Room # / Description: Room Y
Dimensions: 23.5' x 20.5'

ASBESTOS

Sampling Company	Material	Material Description	Lineal Foot Square Foot	Asbestos Type	%	Correlating Sample ID
Other	Pipe Insulation	White mag pipe	63 LF	**Chrysotile Asbestos** **Amosite Asbestos**	**2** **40**	
Diamond	Wall Drywall	Tan board		NAFD		-03 asb
Diamond	Ceiling Drywall	Tan board		NAFD		-02 asb
	Ceiling Tile	N/A				
Other	Floor Tile	9" x9" gray	482 SF	**Chrysotile Asbestos**	**12**	
Diamond	Duct work	1' x1.5 x 1' x12.5'		NAFD		-08 asb

LEAD

Sampling Company	Material	Color	Lead %	Correlating Sample ID
Diamond	Ceiling Paint	Cream	0.025	03 pb
Diamond	Wall Paint	Green	0.250	04 pb

Diamond Environmental, LLC.

Floor: Second

Room # / Description: Room Z
Dimensions: 18' x 20.5'

ASBESTOS

Sampling Company	Material	Material Description	Lineal Foot Square Foot	Asbestos Type	%	Correlating Sample ID
Other	Pipe Insulation	White mag pipe	19 LF	**Chrysotile Asbestos** **Amosite Asbestos**	**2** **40**	
Diamond	Wall Drywall	Tan board		NAFD		-03 asb
Diamond	Ceiling Drywall	Tan board		NAFD		-02 asb
	Ceiling Tile	N/A				
Other	Floor Tile	9" x9" Gray	369 SF	**Chrysotile Asbestos**	**12**	

LEAD

Sampling Company	Material	Color	Lead %	Correlating Sample ID
Diamond	Ceiling Paint	Cream	0.025	03 pb
Diamond	Wall Paint	Green	0.250	04 pb

Diamond Environmental, LLC.

Floor: Second

Room # / Description: Room A1 & Hallway
Dimensions: 19' x 53'

ASBESTOS

Sampling Company	Material	Material Description	Lineal Foot Square Foot	Asbestos Type	%	Correlating Sample ID
Other	Pipe Insulation	White mag pipe	25 LF	**Chrysotile Asbestos** **Amosite Asbestos**	**2** **40**	
Diamond	Wall Drywall	Tan board		NAFD		-03 asb
Diamond	Ceiling Drywall	Tan board		NAFD		-02 asb
	Ceiling Tile	N/A				
Other	Floor Tile	9" x9" Black	1007 SF	**Chrysotile Asbestos**	**10**	

LEAD

Sampling Company	Material	Color	Lead %	Correlating Sample ID
Diamond	Ceiling Paint	White	ND	01 pb
Diamond	Wall Paint	Cream	ND	05 pb

Diamond Environmental, LLC.

Floor: Basement

Room # / Description: Room AZ (Storage area)

ASBESTOS

Sampling Company	Material	Material Description	Lineal Foot Square Foot	Asbestos Type	%	Correlating Sample ID
Other	Pipe Insulation	White mag pipe	60 LF	**Chrysotile Asbestos** **Amosite Asbestos**	**2** **40**	
	Wall Drywall	N/A				
	Ceiling Drywall	N/A				
	Ceiling Tile	N/A				
	Floor Tile	N/A				

LEAD

Sampling Company	Material	Color	Lead %	Correlating Sample ID
Diamond	Ceiling Paint	White	ND	06 pb
Diamond	Wall Paint	White	ND	06 pb

Diamond Environmental, LLC.

Floor: Basement

Room # / Description: Boiler Room

ASBESTOS

Sampling Company	Material	Material Description	Lineal Foot Square Foot	Asbestos Type	%	Correlating Sample ID
Other	Pipe Insulation	White mag pipe	266 LF	**Chrysotile Asbestos** **Amosite Asbestos**	**2** **40**	
	Wall Drywall	N/A				
	Ceiling Drywall	N/A				
	Ceiling Tile	N/A				
	Floor Tile	N/A				
Other	Large tank	3.5' x10'		**Chrysotile Asbestos** **Amosite Asbestos**	**15** **25**	
Other	Heat Exchanger	14" x8'		**Chrysotile Asbestos** **Amosite Asbestos**	**20** **25**	
Diamond	Furnace Ins.	Fibrous		NAFD		-10 asb

LEAD

Sampling Company	Material	Color	Lead %	Correlating Sample ID
Diamond	Ceiling Paint	Cream	0.052	07 pb
Diamond	Wall Paint	Cream	0.052	07 pb

Diamond Environmental, LLC.

Floor: Basement

Room # / Description: Stairwell (South Side)

ASBESTOS

Sampling Company	Material	Material Description	Lineal Foot Square Foot	Asbestos Type	%	Correlating Sample ID
Other	Pipe Insulation	White mag pipe	50 LF	**Chrysotile Asbestos** **Amosite Asbestos**	**2** **40**	
	Wall Drywall	N/A				
	Ceiling Drywall	N/A				
	Ceiling Tile	N/A				
	Floor Tile	N/A				

LEAD

Sampling Company	Material	Color	Lead %	Correlating Sample ID
Diamond	Ceiling Paint	White	ND	11 pb
Diamond	Wall Paint	White	ND	11 pb

Diamond Environmental, LLC.

Floor: Basement

Room # / Description: Room A3

ASBESTOS

Sampling Company	Material	Material Description	Lineal Foot Square Foot	Asbestos Type	%	Correlating Sample ID
Other	Pipe Insulation	White mag pipe	103 LF	**Chrysotile Asbestos** **Amosite Asbestos**	**2** **40**	
	Wall Drywall	Tan board		NAFD		09 asb
	Ceiling Drywall	N/A				
	Ceiling Tile	N/A				
	Floor Tile	N/A				

LEAD

Sampling Company	Material	Color	Lead %	Correlating Sample ID
Diamond	Ceiling Paint	White	ND	06 pb
Diamond	Wall Paint	White	ND	06 pb

Diamond Environmental, LLC.

Floor: Basement

Room # / Description: Room A4

ASBESTOS

Sampling Company	Material	Material Description	Lineal Foot Square Foot	Asbestos Type	%	Correlating Sample ID
Other	Pipe Insulation	White mag pipe	128 LF	**Chrysotile Asbestos** **Amosite Asbestos**	**2** **40**	
	Wall Drywall	Tan board		NAFD		09 asb
	Ceiling Drywall	N/A				
	Ceiling Tile	N/A				
	Floor Tile	N/A				

LEAD

Sampling Company	Material	Color	Lead %	Correlating Sample ID
Diamond	Ceiling Paint	White	ND	06 pb
Diamond	Wall Paint	White	ND	06 pb

Diamond Environmental, LLC.

Floor: Basement

Room # / Description: Room A5 and Hallway

ASBESTOS

Sampling Company	Material	Material Description	Lineal Foot Square Foot	Asbestos Type	%	Correlating Sample ID
Other	Pipe Insulation	White mag pipe	145 LF	**Chrysotile Asbestos** **Amosite Asbestos**	**2** **40**	
	Wall Drywall	Tan board		NAFD		09 asb
	Ceiling Drywall	N/A				
	Ceiling Tile	N/A				
	Floor Tile	N/A				

LEAD

Sampling Company	Material	Color	Lead %	Correlating Sample ID
Diamond	Ceiling Paint	White	ND	06 pb
Diamond	Wall Paint	White	ND	06 pb

Diamond Environmental, LLC.

Floor: Basement

Room # / Description: Restroom and Shower

ASBESTOS

Sampling Company	Material	Material Description	Lineal Foot Square Foot	Asbestos Type	%	Correlating Sample ID
Other	Pipe Insulation	White mag pipe	266 LF	**Chrysotile Asbestos** **Amosite Asbestos**	**2** **40**	
	Wall Drywall	N/A				
	Ceiling Drywall	N/A				
	Ceiling Tile	N/A				
	Floor Tile	N/A				

LEAD

Sampling Company	Material	Color	Lead %	Correlating Sample ID
Diamond	Ceiling Paint	N/A		
Diamond	Wall Paint	N/A		

Diamond Environmental, LLC.

Floor: Basement

Room # / Description: Caged Storage Area

ASBESTOS

Sampling Company	Material	Material Description	Lineal Foot Square Foot	Asbestos Type	%	Correlating Sample ID
Other	Pipe Insulation	White mag pipe	498 LF	**Chrysotile Asbestos** **Amosite Asbestos**	**2** **40**	
	Wall Drywall	N/A				
	Ceiling Drywall	N/A				
	Ceiling Tile	N/A				
	Floor Tile	N/A				

LEAD

Sampling Company	Material	Color	Lead %	Correlating Sample ID
Diamond	Ceiling Paint	White	0.028	08 pb
Diamond	Wall Paint	White	0.028	08 pb

Diamond Environmental, LLC.

Floor: Basement

Room # / Description: Room A6 (range storage)
Dimensions: 16' x 13'

ASBESTOS

Sampling Company	Material	Material Description	Lineal Foot Square Foot	Asbestos Type	%	Correlating Sample ID
Other	Pipe Insulation	White mag pipe	11 LF	**Chrysotile Asbestos** **Amosite Asbestos**	**2** **40**	
	Wall Drywall	N/A				
	Ceiling Drywall	N/A				
Diamond	Ceiling Tile	12" x12"		NAFD		-12 asb
Other	Floor Tile	9" x9" Maroon	208 SF	**Chrysotile Asbestos**	**10**	
Diamond	Wall board	12" x12'		NAFD		-11 asb

LEAD

Sampling Company	Material	Color	Lead %	Correlating Sample ID
Diamond	Ceiling Paint	N/A		
Diamond	Wall Paint	N/A		

Diamond Environmental, LLC.

Floor: Basement

Room # / Description: Gun Range

ASBESTOS

Sampling Company	Material	Material Description	Lineal Foot Square Foot	Asbestos Type	%	Correlating Sample ID
Other	Pipe Insulation	White mag pipe	416 LF	**Chrysotile Asbestos** **Amosite Asbestos**	**2** **40**	
	Wall Drywall	N/A				
	Ceiling Drywall	N/A				
Diamond	Ceiling Tile	12" x12"		NAFD		-12 asb
Other	Floor Tile	9" x9" Maroon	208 SF	**Chrysotile Asbestos**	**10**	
Diamond	Fibrous Wall board	N/A treated as Pb				
Diamond	Vibration Dampner	Woven cloth		NAFD		-13 asb
Diamond	Duct insulation	2'x4'x2'x4'x3	36 SF	**Chrysotile Asbestos**	**10**	-14 asb

LEAD

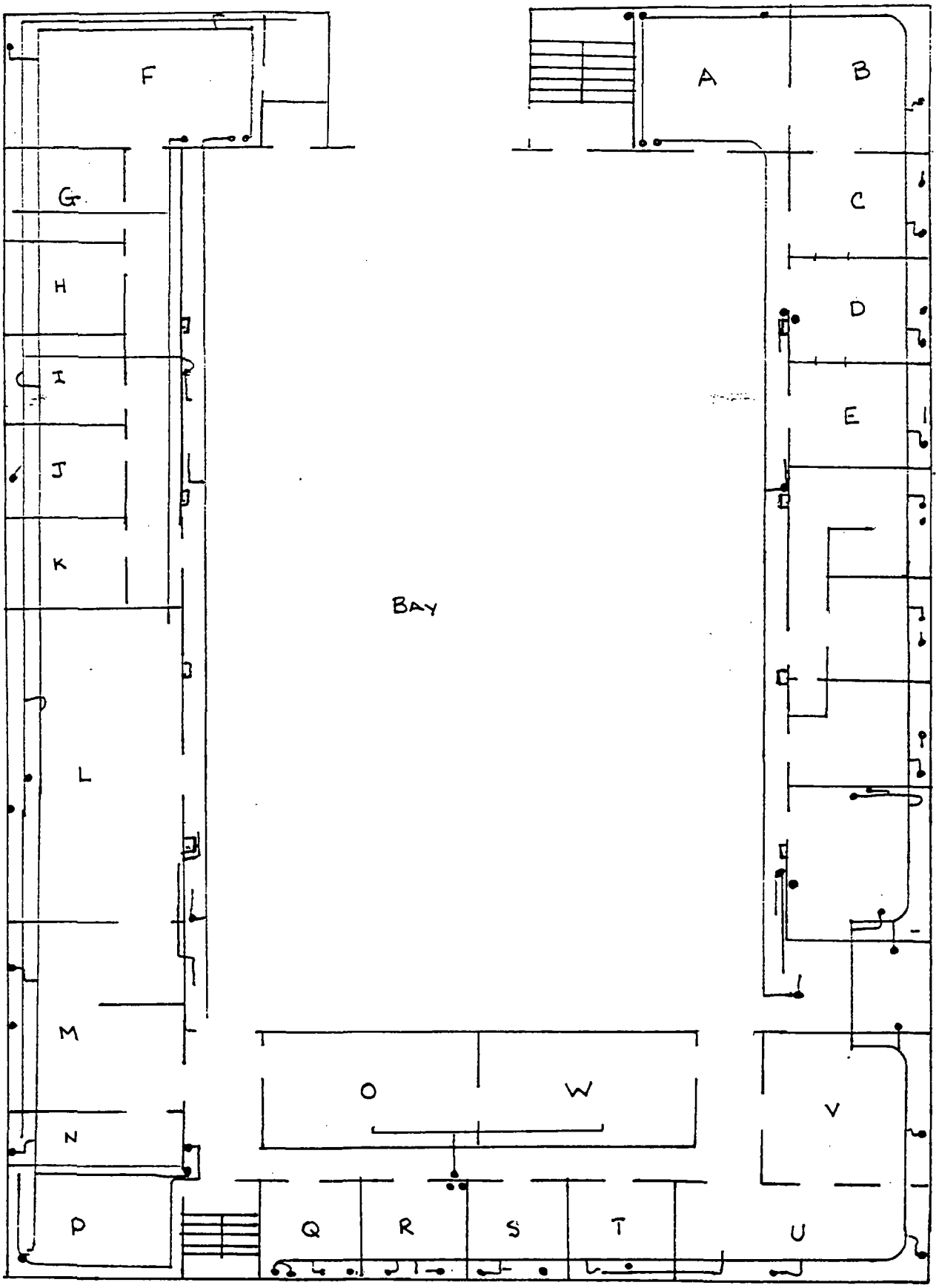
Sampling Company	Material	Color	Lead %	Correlating Sample ID
Diamond	Ceiling Paint	N/A		
Diamond	Wall Paint	N/A		

Diamond Environmental

P.O. Box 2543 • Stow, Ohio 44224 • (330) 686-5996

Section V

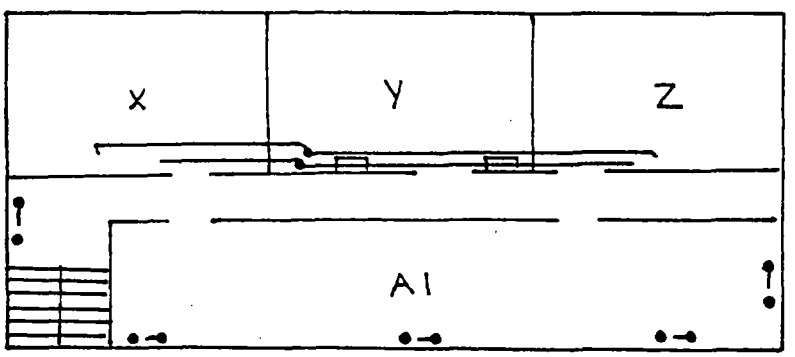
Maps



● - Asbestos Riser

—— - Asbestos pipe

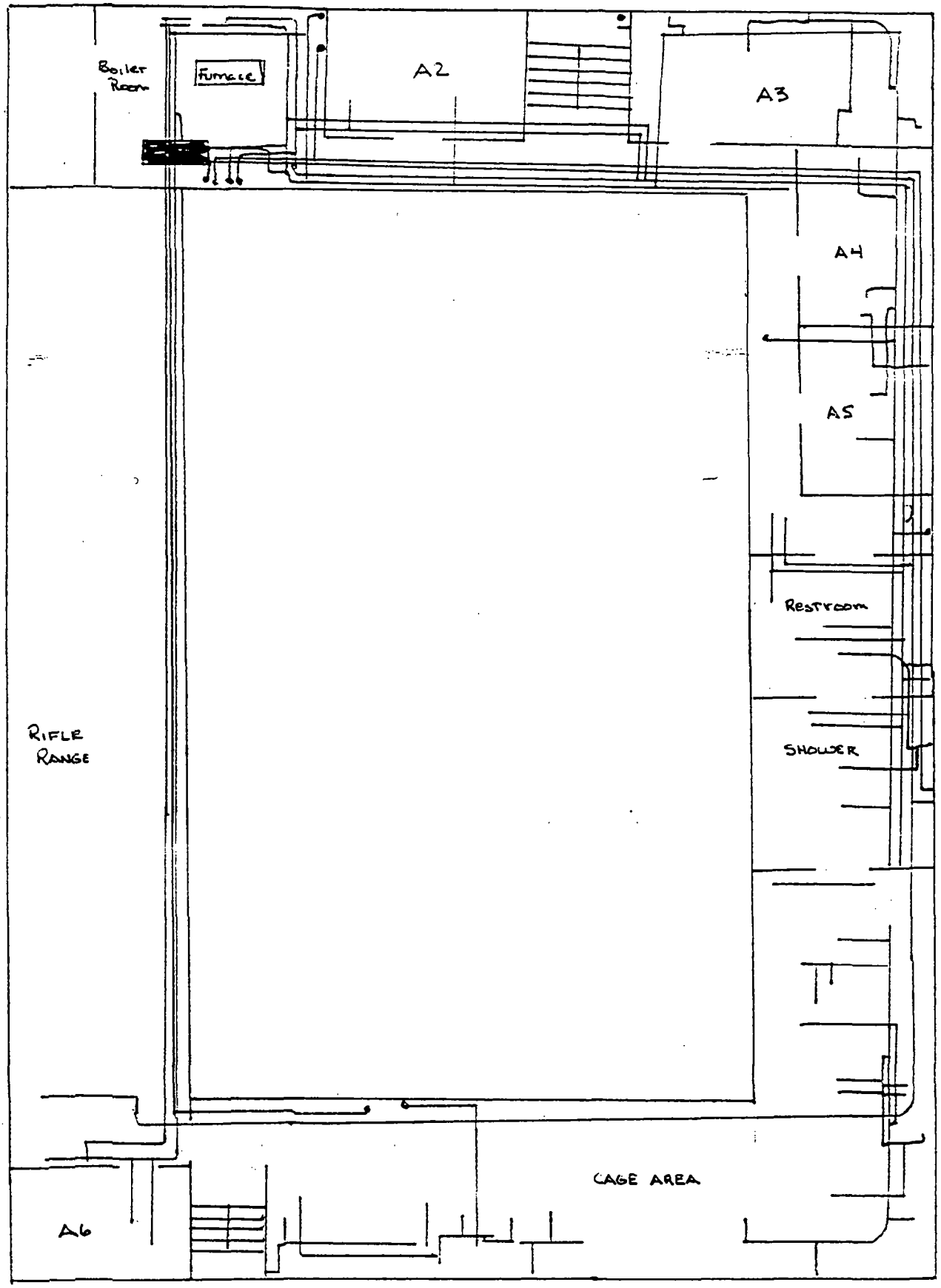
NORTH



● . Asbestos Riser
— - Asbestos Pipe

NORTH

Basement



c - Asbestos Riser

— - Asbestos Pipe

NORTH

Environmental Industrial Hygiene Occupational Safety

Diamond Environmental

P.O. Box 2543 • Stow, Ohio 44224 • (330) 686-5996

April 4, 2000

Mr. Bill Scoville
IT Corporation
11499 Chester Rd.
Cincinnati, Ohio 45246

RE: Consulting -Air Monitoring during Asbestos Abatement and Repair
SSG Gus Kefert USARC
399 Miller Rd. Youngstown, Ohio

Diamond# 000101
IT Corp# 803248.08

Description of Work

Diamond Environmental, LLC. was contracted by IT Corporation to perform project consulting and airborne fiber monitoring services in conjunction with an asbestos abatement, repair, and clean-up project at the SSG Gus Kefert USARC Base in Youngstown, Ohio. Project consulting and air monitoring were conducted by Mr. Steve Masters, CAHAS, CAHES of Diamond Environmental from March 20, 21, 22, 23, 24, 27, 28, 29, 30, and 31, 2000.

Project Consulting

Project consulting consisted of insuring contractor compliance with all local, state, and federal rules and regulations pertaining to asbestos abatement. Included as part of this report is all pertinent documentation dealing with this project.

Air Monitoring

Air monitoring consisted of taking background, personal, excursion, and perimeter samples throughout this project to comply with the ODH, OSHA, and EPA rules and regulations during asbestos abatement, repair, and clean-up. Included as part of this report is all pertinent air monitoring documentation dealing with this project.

Air Analysis

All air samples were analyzed by phase contrast microscopy in accordance with the National Institute of Occupational Safety and Health (NIOSH) 7400A method, Issue 2. The use of a phase contrast microscope is limited to counting all fibers, including non-asbestos fibers.

Summary

The project consisted of glovebag removal of approximately 1,467 lineal feet of asbestos containing pipe insulation, removal of 200 square feet of non-friable asbestos containing floor tile, 20 square feet of non- friable asbestos containing duct insulation, and repair of approximately 723 lineal feet of asbestos containing pipe insulation in the basement, first floor and second floor of the SSG Gus Kefert USARC Base in Youngstown, Ohio from March 20 to the 31st, 2000.

Environmental Industrial Hygiene Occupational Safety

Diamond Environmental

P.O. Box 2543 • Stow, Ohio 44224 • (330) 686-5996

Please contact the undersigned if you require any additional information. Thank you for consulting Diamond Environmental.

Sincerely,

Diamond Environmental, LLC.

Keith R Bickel

Keith R. Bickel, CHMM, REP, CAHES
Asbestos Project Coordinator

Diamond Environmental

P.O. Box 2543 • Stow, Ohio 44224 • (330) 686-5996

Table of Contents

Diamond Environmental

P.O. Box 2543 • Stow, Ohio 44224 • (330) 686-5996

Section I

Diamond Environmental

P.O. Box 2543 • Stow, Ohio 44224 • (330) 686-5996

SSG. Gus Kefert Army Reserve Center

Asbestos Containing Materials Removed or Repaired By Day

DATE	LINEAL FEET REMOVED	REPAIR	OTHER
3/20/2000 (Mon)	Activity: Mobilize and Prep		
3/21/2000 (Tues)	Steel Plate Cutting.....		
3/22/2000 (Wed)	Start Removal Process		
3/23/2000 (Thurs)	25 LF	-0-LF	-0-
3/24/2000 (Fri)	402 LF	-0- LF	150 SF Floor Tile 20 SF Duct Ins.
3/27/2000 (Mon)	189 LF	137 LF	-0-
3/28/2000 (Tues)	386 LF	196 LF	-0-
3/29/2000 (Wed)	180 LF	277 LF	-0-
3/30/2000 (Thur)	285 LF	113 LF	50 SF Floor Tile -0- Duct Ins.
3/31/2000 (Fri)	-0-	-0-	-0-
TOTAL	**1467 LF TSI Glovebagged**	**723 LF TSI Repaired**	**200 SF Floor Tile-Removed 20 SF Duct Ins. Repaired**

Environmental Industrial Hygiene Occupational Safety

Diamond Environmental

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White Mag Pipe Insulation

Location	Lineal Feet
Room A	64
Room B	36
Room C	23
Room D	38
Room E	30
Men's Restroom	28
Men's Changing Room	20
Women's Restroom	27
Kitchen	66
Room F	169
Room G	32
Room H	20
Room I	48
Room J	27
Room K	16
Hallway	51
Room L	107
Room M	78
Room N	21
Room O	13
Room P	81
Stairwell	13
Rooms Q, R, S, T	149
Room U	73
Room V	44
Hallway	6
Room W	13
Bay	350
Room X	19
Room Y	63
Room Z	19
Room A1 and Hallway	25
Room AZ	60

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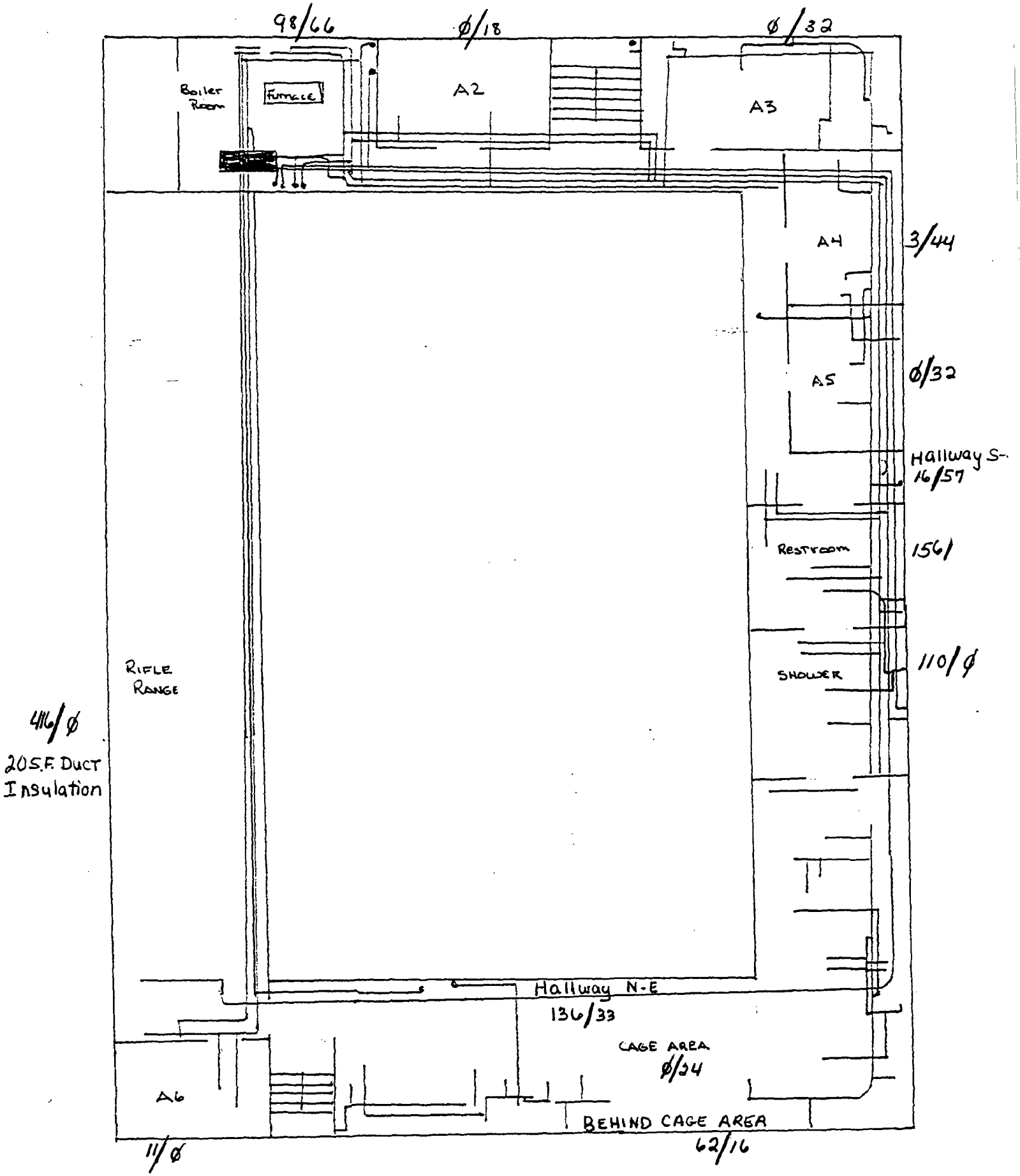
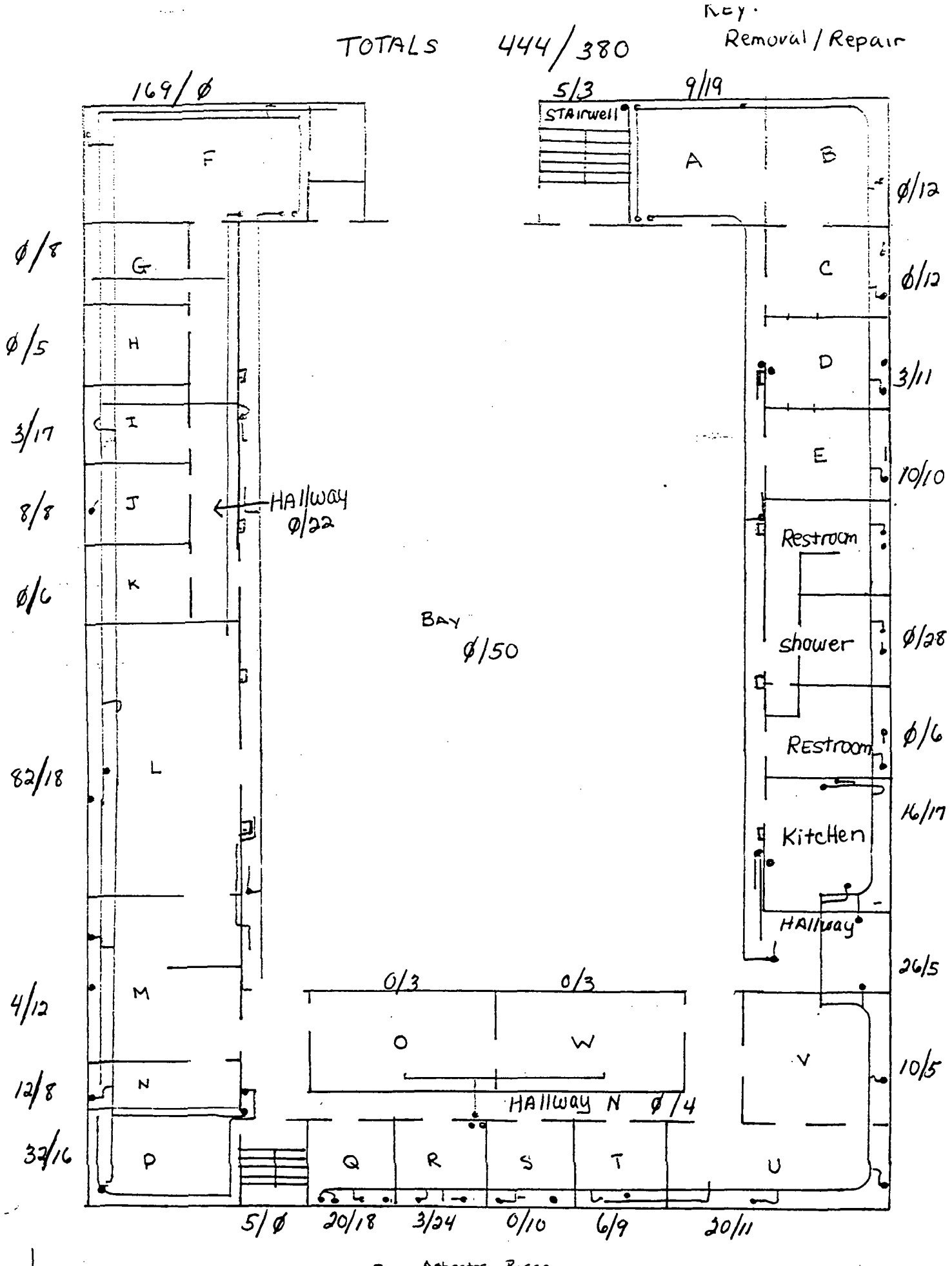
Boiler Room	266
Basement Stairwell	50
Room A3	103
Room A4	128
Room A5	116
HWT and Hallway	29
Restroom	156
Shower	110
Caged Storage Area	498
Basement stairwell	25
Room A6	11
Gun Range	416
Total	**3,737 LF**

Basement TOTALS

KEY.
Removal / Repair

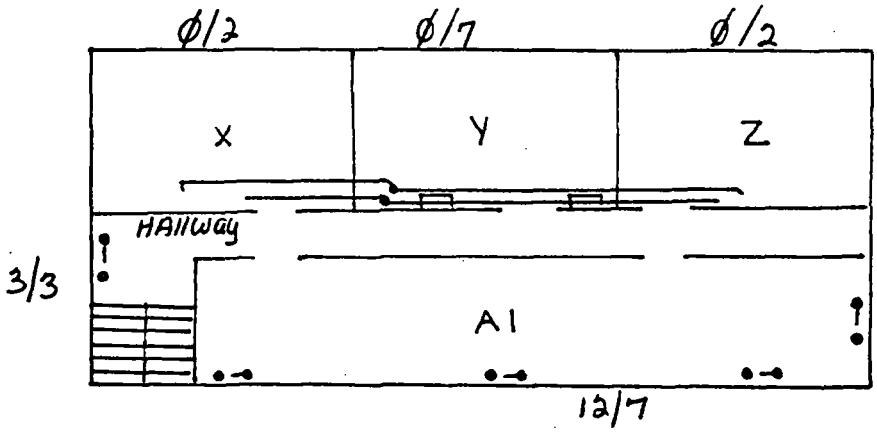


- Asbestos Riser


Key.
Removal / Repair
TOTALS 444/380
169/Ø
5/3
9/19
STAIRWELL
A
B
F
Ø/12
Ø/8
G
C
Ø/12
Ø/5
H
D
3/11
3/17
I
E
10/10
8/8
J
HALLWAY
Ø/22
Restroom
Ø/6
K
BAY
Ø/50
shower
Ø/28
Restroom
Ø/6
82/18
L
16/17
Kitchen
HALLway
26/5
0/3
0/3
4/12
M
O
W
V
10/5
12/8
N
HALLway N
Ø/4
37/16
P
Q
R
S
T
U
5/Ø
20/18
3/24
0/10
6/9
20/11
- Asbestos Riser
- Asbestos pipe
NORTH

Totals 15/21

KEY:
Removal/Repair



● . Asbestos Riser
— - Asbestos Pipe

NORTH

Environmental Industrial Hygiene Occupational Safety

Diamond Environmental

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Section II

Project Development Group, Inc.
102 Technology Lane • Export, PA 15632-8903
724-325-1449 • FAX 724-327-3717

March 7, 2000

Project Number: 001019

Asbestos Hazard Abatement
Project Agreement

Ms. Rhonda L. Thomas
IT Corporation
312 Directors Drive
Knoxville, TN 37923

Youngstown Army Reserve Center
Basement Through Second Floor

Project Development Group, Inc., (PDG) will perform asbestos abatement tasks using only workers that are licensed and certified to work in the State of Ohio.

Air Sampling

Clearance air-sampling will be analyzed using PCM, (Phase Contrast Microscopy), methods with a minimum of 3 air samples per containment. Samples will be taken by an independent third party firm, licensed in the State of Ohio, and hired by the Owner's Consultant. Clearance samples must show that the concentration of fibers are below 0.01 fibers per cubic centimeter of air before re-occupancy.

Description of Scope of Work

Glove bag and or containment removal of approximately 1,700 LF of asbestos containing pipe insulation. Removal of approximately 100 SF of floor tile and mastic.

The pipe insulation to be removed is located throughout the building in the basement and on the 1st and 2nd floors. The majority of the pipe insulation will be removed using the glove bag method and the work area will be demarcated with appropriate signage posted. A containment will be constructed if multiple runs of pipe are removed in the same area. Containments will be constructed as a negative pressure enclosure.

Lawrence J. Horvat
Vice President
Title
3/08/00
Date

Rhonda L. Thomas
Procurement Manager
Title
3-8-00
Date

REVISION - COMPLETION DATE ONLY

Postmark	Date Received	Notification No.

Ohio Department of Health

Prior Notification of Asbestos Hazard Abatement Project

Read carefully all the instructions and questions prior to completing the notification form.

1. Notifications including check shall be typed and sent to the Ohio Department of Health, Attn: Revenue Processing, P.O. Box 15278, Columbus, Ohio 43215.
2. Checks shall be made payable to: Treasurer, State of Ohio, for the amount of twenty-five dollars ($25.00).
3. Any licensed asbestos hazard abatement contractor who performs any asbestos hazard abatement projects within the State of Ohio shall submit prior notifications to the Director postmarked at least ten business days before beginning each planned asbestos hazard abatement project as required by Chapter 3701-34 of the Ohio Administrative Code.
4. Type of notification ☐ blanket ☐ original ☐ emergency ☐ cancellation
   ☒ revision number 1 revised line(s) number _____ _____ _____ _____
5. Type of abatement involving at least 50 linear feet or 50 square feet
   ☐ repair ☐ encapsulation ☐ enclosure ☒ removal ☐ renovation

6. Owner name: 88th Regional Support Command

Address	City	State	ZIP
506 Roeder Circle	Fort Snelling	MN	55111

Contact	Contact telephone number
Mark Buck	(612) 713-3826

7. Abatement Contractor: Project Development Group, Inc. — License number: 1033 — Expiration: 5/30/00

Address	City	State	ZIP
102 Technology Lane	Export	PA	15632

Contact	Telephone number
Lawrence J. Horvat, Vice President	(724) 325-1449

8. Name of asbestos hazard abatement specialist for project: Stacy Lesher — Certification number: 27073 — Expiration: 10/20/00

9. Project information—Building name: Gus Kefurt Army Reserve Center

Address	City	State	County
399 Miller Street	Youngstown	OH	Mahoning

Site location (*specific*): Pipe insulation throughout the building in all rooms.

10. Project description
    Type of asbestos material: ☐ surfacing ☒ mechanical ☐ other
    Asbestos removal from: ☒ pipe ☐ boiler ☐ other
    Engineering controls: ☐ AFD ☒ glove bag ☐ other Wet method

11. Estimate of asbestos containing material: linear feet 1,700 — square feet

12. Abatement dates: set up 3/21/00 — abatement 3/21/00 — completion (acm work only) ~~4/28/00~~ 3/31/00
    Hours of operation: 7:00 AM - 3:30 PM

Days of the week	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
	X	X	X	X	X		

13. Approved landfill—Name: Valley Landfill RD#2 Box 282A, Pleasant Valley Rd. — EPA permit number: 100280

City	State	Telephone number
Irwin	PA	714-722-7446

14. Name of person filing this notice: Lawrence J. Horvat, Vice President — Date: 3/7/00

EA 5121 (Rev. 1/99) 724 325-1449

614 644 0226

Postmark	Date Received	Notification No.

Ohio Department of Health

Prior Notification of Asbestos Hazard Abatement Project

Read carefully all the instructions and questions prior to completing the notification form.

1. Notifications including check shall be typed and sent to the Ohio Department of Health, Attn: Revenue Processing, P.O. Box 15278, Columbus, Ohio 43215.
2. Checks shall be made payable to: Treasurer, State of Ohio, for the amount of twenty-five dollars ($25.00).
3. Any licensed asbestos hazard abatement contractor who performs any asbestos hazard abatement projects within the State of Ohio shall submit prior notifications to the Director postmarked at least ten business days before beginning each planned *asbestos hazard abatement project as required by Chapter 3701-34 of the Ohio Administrative Code.*
4. Type of notification ☐ blanket ☒ original ☐ emergency ☐ cancellation
   ☐ revision number _____ revised line(s) number _____ _____ _____ _____
5. Type of abatement involving at least 50 linear feet or 50 square feet
   ☐ repair ☐ encapsulation ☐ enclosure ☒ removal ☐ renovation

6. Owner name: 88th Regional Support Command

Address	City	State	ZIP
506 Roeder Circle	Fort Snelling	MN	55111

Contact	Contact telephone number
Mark Buck	(612) 713-3826

7. Abatement Contractor: Project Development Group, Inc. — License number: 1033 — Expiration: 5/30/00

Address	City	State	ZIP
102 Technology Lane	Export	PA	15632

Contact	Telephone number
Lawrence J. Horvat, Vice President	(724) 325-1449

8. Name of asbestos hazard abatement specialist for project: Stacy Lesher — Certification number: 27073 — Expiration: 10/20/00

9. Project information—Building name: Gus Kefurt Army Reserve Center

Address	City	State	County
399 Miller Street	Youngstown	OH	Mahoning

Site location (*specific*): Pipe insulation throughout the building in all rooms.

10. Project description
    Type of asbestos material: ☐ surfacing ☒ mechanical ☐ other
    Asbestos removal from: ☒ pipe ☐ boiler ☐ other
    Engineering controls: ☐ AFD ☒ glove bag ☐ other Wet method

11. Estimate of asbestos containing material
    linear feet 1,700 — square feet

12. Abatement dates
    set up 3/21/00 — abatement 3/21/00 — completion (acm work only) 4/28/00
    Hours of operation: 7:00 AM - 3:30 PM

Days of the week	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
	X	X	X	X	X		

13. Approved landfill—Name: Valley Landfill RD#2 Box 282A, Pleasant Valley Rd.. — EPA permit number: 100280

City	State	Telephone number
Irwin	PA	714-722-7446

14. Name of person filing this notice: Lawrence J. Horvat, Vice President — Date: 3/7/00

HEA 5121 (Rev. 1/99)

REVISION - COMPLETION DATE ONLY

OHIO ENVIRONMENTAL PROTECTION AGENCY
NOTIFICATION OF DEMOLITION AND RENOVATION

Operator Project #	Postmark	Date Received	Notification #
019			

I. Type of Notification (check one): ☐ Original ☒ Revised ☐ Canceled

II. Facility Description (include building name, number, and floor or room number)

Building Name: Gus Kefurt Army Reserve Center

Address: 399 Miller Street

City: Youngstown State: OHIO Zip Code: 44507 County: Mahoning

Site Location (specific): Piping located throughout the building in all rooms.

Building Size (square feet): 50,000 including basement # of Floors: 2 Age in Years: 50

Present Use: Vacant Prior Use: Army Reserve Center

III. Type of Operation (check one): ☐ Demo ☐ Ordered Demo ☒ Renovation ☐ Emergency Renovation ☐ Fire Training

IV. Is Asbestos Present? (check one): ☒ Yes ☐ No

V. Facility Information

Owner Name: 88th Regional Support Command

Address: 506 Roeder Circle

City: Fort Snelling State: MN Zip Code: 55111

Contact: Mark Buck Telephone: (612) 713-3826 Fax: (612) 713-3516

Removal Contractor Name: Project Development Group, Inc. License # 1033

Address: 102 Technology Lane

City: Export, State: PA Zip Code: 15632

Contact: Lawrence J. Horvat Telephone: (724) 325-1449 Fax: (724) 327-3717

Other Operator (demolition/general): License #

Address:

City: State: Zip Code:

Contact: Telephone: ( ) Fax: ( )

VI. Procedure, including analytical methods, employed to detect the presence of and to estimate the quantity of RACM and Category I and Category II nonfriable ACM:

Bulk sample survey with analysis by polarized light microscopy.

Ohio Asbestos Hazard Evaluation Specialist: Stacy Lesher (Name) 27073 (Certification #)

VII. Approximate Amount of Asbestos Materials:

	RACM to be Removed	Nonfriable Asbestos Material to be Removed		Nonfriable Asbestos Material NOT to be Removed	
		Category I	Category II	Category I	Category II
Pipes (linear feet)	1,700	100		2,000	
Surface Area (square feet)					
Facility Components (cubic feet)					

VIII. Scheduled Dates Demolition or Renovation: Start: 3/21/00 Complete: 6/28/00

X. Dates for Asbestos Removal (MM/DD/YY) Start: 3/21/00 Complete: ~~4/28/00~~ 3/31/00

Day of the Week:	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Hours of Operation:	7:00 AM - 3:30 PM	----------	----------	----------	----------	NA	NA

Complete all unshaded spaces, except demolitions which involve less than 260 linear feet, 160 square feet, or 35 cubic feet of RACM, need not complete spaces VII, XI, XII, XIII, XIV, and XV. Notifications for Emergency Demolition or Emergency Renovation must supply attachments.

OHIO ENVIRONMENTAL PROTECTION AGENCY
NOTIFICATION OF DEMOLITION AND RENOVATION

Operator Project #	Postmark	Date Received	Notification #
001019			

I. Type of Notification (check one): ☒ Original ☐ Revised ☐ Canceled

II. Facility Description (include building name, number, and floor or room number)

Building Name: Gus Kefurt Army Reserve Center

Address: 399 Miller Street

City: Youngstown State: OHIO Zip Code: 44507 County: Mahoning

Site Location (specific): Piping located throughout the building in all rooms.

Building Size (square feet): 50,000 including basement # of Floors: 2 Age in Years: 50

Present Use: Vacant Prior Use: Army Reserve Center

III. Type of Operation (check one): ☐ Demo ☐ Ordered Demo ☒ Renovation ☐ Emergency Renovation ☐ Fire Training

IV. Is Asbestos Present? (check one): ☒ Yes ☐ No

V. Facility Information

Owner Name: 88th Regional Support Command

Address: 506 Roeder Circle

City: Fort Snelling State: MN Zip Code: 55111

Contact: Mark Buck Telephone: (612) 713-3826 Fax: (612) 713-3516

Removal Contractor Name: Project Development Group, Inc. License # 1033

Address: 102 Technology Lane

City: Export, State: PA Zip Code: 15632

Contact: Lawrence J. Horvat Telephone: (724) 325-1449 Fax: (724) 327-3717

Other Operator (demolition/general): License #

Address:

City: State: Zip Code:

Contact: Telephone: ( ) Fax: ( )

VI. Procedure, including analytical methods, employed to detect the presence of and to estimate the quantity of RACM and Category I and Category II nonfriable ACM:

Bulk sample survey with analysis by polarized light microscopy.

Ohio Asbestos Hazard Evaluation Specialist: Stacy Lesher (Name) 27073 (Certification #)

VII. Approximate Amount of Asbestos Materials:

	RACM to be Removed	Nonfriable Asbestos Material to be Removed		Nonfriable Asbestos Material NOT to be Removed	
		Category I	Category II	Category I	Category II
Pipes (linear feet)	1,700	100		2,000	
Surface Area (square feet)					
Facility Components (cubic feet)					

VIII. Scheduled Dates Demolition or Renovation: Start: 3/21/00 Complete: 6/28/00

Dates for Asbestos Removal (MM/DD/YY) Start: 3/21/00 Complete: 4/28/00

Days of the Week:	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Hours of Operation:	7:00 AM - 3:30 PM	----------	----------	----------	----------	NA	NA

Complete all unshaded spaces, except demolitions which involve less than 260 linear feet, 160 square feet, or 35 cubic feet of RACM, need not complete spaces VII, XI, XII, XIII, XIV, and XV. Notifications for Emergency Demolition or Emergency Renovation must supply attachments.

OHIO ENVIRONMENTAL PROTECTION AGENCY
NOTIFICATION OF DEMOLITION AND RENOVATION

Description of planned Demolition or Renovation work to be performed and method(s) to be employed, including demolition or renovation techniques to be used and description of affected facility components:

Pipe insulation removal described in Block VII will be removed utilizing the glove bag techniques.

XI. Description of work practices and engineering controls to be used to comply with the requirements, including asbestos removal and waste handling emission control procedures:

Work will be done in a regulated area utilizing wet methods, HEPA local exhaust, and critical barriers. HEPA vacuums will also be used for clean-up and a remote 3 stage personnel decontamination facility will be utilized.

XII. **Waste Transporter #1**

Name: Waste Management
Address: 310 Leger Road
City: Irwin State: PA Zip Code: 15642
Contact: Ray Duerr Telephone: (724) 864-5166 Fax: ( )

Waste Transporter #2

Name: NA
Address:
City: State: Zip Code:
Contact: Telephone: ( ) Fax: ( )

XIII. **Waste Disposal**

Name: Valley Landfill
Address: RD#2 Box 282A Pleasant Valley Road
City: Irwin State: PA Zip Code: 15642
Contact: Jerry Sabitini Telephone: (724) 744-7446 Fax: ( )

XIV. Emergency Demolition (complete Item XIV and all other sections, only if this project is an Emergency Demo.)

1. Attach a copy of the Order to this notice.
2. Name of Authority Issuing Order: Title:
3. Authority of Order (Citation of Code):
4. Date of Order (MM/DD/YY): Date Ordered to Begin:

XV. Emergency Renovation (Attach separate sheet with the following information if project is Emergency Reno.)

1. Date and Hour of the Emergency
2. Description of the Sudden, Unexpected Event
3. Explanation of how the event caused unsafe conditions or equipment damage or an unreasonable financial burden.

XVI. Description of procedures to be followed in the event that unexpected RACM is found or nonfriable ACM becomes crumbled, pulverized or reduced to powder.

Contain the area by sealing openings and utilize HEPA exhaust system as necessary. Wet and containerize RACM and decontaminate area with HEPA vacuum or wet wipe. Perform air clearance sampling as required.

XVII. I certify that an individual trained in the provisions of NESHAPS (40 CFR PART 61, SUBPART M) will be on-site during the Demolition or Renovation and evidence that the required training has been accomplished by this person will be available during normal business hours.

Signature of Owner/Operator	3/7/00 Date	Lawrence J. Horvat, Vice President Type or Print Name and Title

XVIII. I acknowledge the existence of laws prohibiting the submission of false or misleading statements and I certify that facts contained in this notification are true, accurate, and complete.

Signature of Owner/Operator	3/7/00 Date	Lawrence J. Horvat, Vice President Type or Print Name and Title

Original Notification must be mailed or hand delivered at least ten working days (Monday-Friday excluding weekends) before demolition or renovation begins, except emergency demolitions and emergency renovations (see regulation) which must be submitted as soon as possible before operations begin. (Form Revised 11/12/97)

STATE OF OHIO

DEPARTMENT OF HEALTH

ASBESTOS CONTRACTOR LICENSE

Be it known that **Project Development Group, Inc.** is hereby licensed as an **ASBESTOS CONTRACTOR**, having qualified as required by law in accordance with rules adopted by the Public Health Council relative to Asbestos Contractors.

In witness whereof I have subscribed my name and affixed the seal of the Department of Health, State of Ohio, this **6th** day of **April 1999,** in the city of Columbus.

License number 1033 is
effective until May 30, 2000

Lou Ellen Fairless, Director of Health

DEPARTMENT OF HEALTH
STATE OF OHIO

HEA 5208 (Rev. 8/97)

ACORD CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YY) 9-MAR-2000

PRODUCER
Willis of Seattle, Inc.
P. O. Box 34201
701 Fifth Avenue
'0 Columbia Center
.ttle WA 98124
(206) 386-7400
Rosanne Smith

82819

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW

INSURED

Project Development Group, Inc.
Attn: Larry Horvat
102 Technology Dr.
Export PA 15632

COMPANIES AFFORDING COVERAGE

COMPANY A: 22322-001 (SEAT) Greenwich Insurance Company

COMPANY B:

COMPANY C:

COMPANY D:

RECEIVED MAR 13 2000

COVERAGES

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED, NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

CO LTR	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS	
A	GENERAL LIABILITY	GEC0000820	31-JAN-2000	31-JAN-2001	GENERAL AGGREGATE	$ 5,000,000
	[X] COMMERCIAL GENERAL LIABILITY				PRODUCTS-COMP/OP AGG	$ 5,000,000
	[ ] CLAIMS MADE [X] OCCUR				PERSONAL & ADV INJURY	$ 5,000,000
	[ ] OWNER'S & CONTRACTOR'S PROT				EACH OCCURRENCE	$ 5,000,000
	[X] ASBESTOS ABATEMENT				FIRE DAMAGE (Any one fire)	$ 50,000
	[X] LEAD ABATEMENT				MED EXP (Any one person)	$ 5,000
A	AUTOMOBILE LIABILITY	AEC0000821	31-JAN-2000	31-JAN-2001	COMBINED SINGLE LIMIT	$ 5,000,000
	[X] ANY AUTO				BODILY INJURY (Per person)	$
	[ ] ALL OWNED AUTOS					
	[ ] SCHEDULED AUTOS				BODILY INJURY (Per accident)	$
	[X] HIRED AUTOS					
	[X] NON-OWNED AUTOS				PROPERTY DAMAGE	$
	[ ]					
	GARAGE LIABILITY				AUTO ONLY - EA ACCIDENT	$
	[ ] ANY AUTO				OTHER THAN AUTO ONLY:	
	[ ]				EACH ACCIDENT	$
					AGGREGATE	$
	EXCESS LIABILITY				EACH OCCURRENCE	$
	[ ] UMBRELLA FORM				AGGREGATE	$
	[ ] OTHER THAN UMBRELLA FORM					$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY				WC STATU-TORY LIMITS / OTH-ER	
	THE PROPRIETOR/ PARTNERS/EXECUTIVE OFFICERS ARE: [ ] INCL [ ] EXCL				EL EACH ACCIDENT	$
					EL DISEASE-POLICY LIMIT	$
					EL DISEASE-EA EMPLOYEE	$
A	OTHER Combined E&O & CPLL	PEC0000823	31-JAN-2000	31-JAN-2001	$2,000,000 Each Occ/Clm $2,000,000 Aggregate	

DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES/SPECIAL ITEMS

Certificate holder is additional insured on General Liability & Auto Policy where required by contract. Job# 001019 Project: Gus Kefut Army Reserve Center 399 Miller Street Youngstwon OH; Other Additional Insured: IT Corporation

CERTIFICATE HOLDER

88th Regional Support Command
506 Roeder Circle
Fort Snelling MN 55111

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING COMPANY WILL ENDEAVOR TO MAIL 30 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LE. BUT FAILURE TO MAIL SUCH NOTICE SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE COMPANY, ITS AGENTS OR REPRESENTATIVES.

AUTHORIZED REPRESENTATIVE

Elise Andrew

ACORD™ CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YY) 03/09/2000

PRODUCER Serial # A3224

BONDING & INSURANCE
SPECIALISTS AGENCY, INC.
SOUTH HARLEM AVENUE
RIDGEVIEW, IL 60455

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.

INSURED

PROJECT DEVELOPMENT GROUP, INC.
ATTN: LARRY HORVAT
102 TECHNOLOGY DRIVE
EXPORT, PA 15632

COMPANIES AFFORDING COVERAGE

COMPANY A: RELIANCE NATIONAL INSURANCE COMPANY

COMPANY B:

COMPANY C:

COMPANY D:

RECEIVED MAR 13 2000

COVERAGES

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED B Y THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

CO LTR	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS	
	GENERAL LIABILITY				GENERAL AGGREGATE	$
	COMMERCIAL GENERAL LIABILITY				PRODUCTS - COMP/OP AGG	$
	CLAIMS MADE / OCCUR				PERSONAL & ADV INJURY	$
	OWNER'S & CONTRACTOR'S PROT				EACH OCCURRENCE	$
					FIRE DAMAGE (Any one fire)	$
					MED EXP (Any one person)	$
	AUTOMOBILE LIABILITY				COMBINED SINGLE LIMIT	$
	ANY AUTO					
	ALL OWNED AUTOS				BODILY INJURY (Per person)	$
	SCHEDULED AUTOS					
	HIRED AUTOS				BODILY INJURY (Per accident)	$
	NON-OWNED AUTOS					
					PROPERTY DAMAGE	$
	GARAGE LIABILITY				AUTO ONLY - EA ACCIDENT	$
	ANY AUTO				OTHER THAN AUTO ONLY:	
					EACH ACCIDENT	$
					AGGREGATE	$
	EXCESS LIABILITY				EACH OCCURRENCE	$
	UMBRELLA FORM				AGGREGATE	$
	OTHER THAN UMBRELLA FORM					$
A	WORKER'S COMPENSATION AND EMPLOYERS' LIABILITY	NWA 1795136-01	08/12/99	08/12/00	X WC STATUTORY LIMITS / OTHER	
	THE PROPRIETOR/ PARTNERS/EXECUTIVE OFFICERS ARE: X INCL / EXCL				EL EACH ACCIDENT	$ 1,000,000
					EL DISEASE - POLICY LIMIT	$ 1,000,000
					EL DISEASE - EA EMPLOYEE	$ 1,000,000
	OTHER					

DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES/SPECIAL ITEMS

RE: GUS KEFURT ARMY RESERVE CENTER, 399 MILLER STREET, YOUNGSTOWN, OH 44507
PROJECT NO.: 001019
START DATE: 3/21/00 TO 6/15/00

CERTIFICATE HOLDER

IT CORPORATION
312 DIRECTORS DRIVE
KNOXVILLE, TN 37923

ND

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING COMPANY WILL ENDEAVOR TO MAIL 30 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO MAIL SUCH NOTICE SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE COMPANY, ITS AGENTS OR REPRESENTATIVES.

AUTHORIZED REPRESENTATIVE

STATE OF OHIO

BUREAU OF WORKERS' COMPENSATION

COLUMBUS, OHIO 43215-2256

CERTIFICATE OF PREMIUM PAYMENT

This certifies that the employer listed below has paid into the State Insurance Fund as required by law. Therefore, the employer is entitled to the rights and benefits of the fund for the period specified.

THIS CERTIFICATE MUST BE CONSPICUOUSLY POSTED.

RISK NO. AND EMPLOYER	PERIOD SPECIFIED BELOW
958344	01/01/2000 THRU 08/31/2000

PROJECT DEVELOPMENT GROUP INC
300 OXFORD DR
MONROEVILLE PA 15146

BWC

James Conrad
ADMINISTRATOR

DP-22
BWC - 1622 (REV. 3/96)

THIS CERTIFICATE MAY BE REPRODUCED AS NEEDED

Diamond Environmental

P.O. Box 2543 • Stow, Ohio 44224 • (330) 686-5996

SSG. Gus Kefert Army Reserve Center

Envirotech Employee Credentials

NAME/ SS#	ODH#	CERTIFICATION EXP. DATE	PHYSICAL EXP.DATE	FIT TEST EXP. DATE
NON RESPONSIVE	Application pending *	11/20/00	04/14/00	11/01/00
	12/03/00 27156 (AS)	11/20/00	11/22/00	11/01/00
	Application pending *	08/19/00	08/04/00	11/01/00
	10/20/00 27073 (AS)	04/24/00	06/01/00	11/01/00
	04/21/00 512657 (W)	07/12/00	06/30/00	11/01/00
	04/07/01 516111(W)	01/21/01	05/12/00	02/09/01
	Application pending *	04/24/00	05/12/00	11/16/00
	9/15/00 512115 (W)	06/22/00	08/03/00	12/20/00
	06/14/00 512811 (W)	06/04/00	06/07/00	09/14/00
	12/17/00 511088 (W)	11/18/00	04/06/00	09/14/00

*** Okayed by Alan Richards of Ohio Department of Health**

PDGEnvironmental, Inc.

ASBESTOS WASTE DISPOSAL MANIFEST/SHIPPING FORM

Project No. 001019

Manifest No. 991851

REGULATED ASBESTOS MATERIAL: EPA WASTE SHIPMENT RECORD

R.Q. Hazardous Substance: (asbestos) : Class 9: NA-2212 Packing Group III

Generator

GENERATOR NAME	TELEPHONE	LOCATION 2.
88th Regional Suport Command	309-782-1395	Gus Kefurt Army Reservce Center
ADDRESS		ADDRESS
506 Roeder Circle		Various Areas 399 Miller Street
CITY / STATE / ZIP		CITY / STATE / ZIP
Fort Snelling / MN / 55111		Youngstown / OH / 44266

3. Waste disposal site (WDS) name, mailing address, and physical site location	WDS phone number
Valley Landfill RD#2 Box 282A Irwin PA 15642 Permit #100280	724-744-7446

4. Name, and address responsible agency (Local, District or EPA Office where notification was sent)
Mahoning Trumbull APC Agency, 345 Oak Hill Avenue Suite 200, Youngstown, OH 44502
Ohio Department of Health, 246 North High Street, Columbus, OH 43215

5. Description of materials	6. Containers Number	Type	7. Total Quantity cubic meters or cubic yards
CAT I NON FRIABLE ACM			
CAT II NON FRIABLE ACM			
CAT III FRIABLE ACM	281	BAGS	25 CY

Abatement Company Name: PDG Environmental, Inc. Address: 102 Technology Lane, Export, PA 15632

Supervisor Name	Signature	Phone
Andy Ninehouser	Andrew J Ninehouser	724-325-1449

9. OPERATORS CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked and labeled, and are in all respects in proper condition for transport by highway according to applicable international government regulations.

Printed/typed Name	Title	Signature	Date (M/DD/YY)
Andy Ninehouser	Project Superintendent	Andrew J Ninehouser	

10. Transporter 1 (Acknowledgement of receipt of materials)
Address and telephone No. Waste Management 724-864-5166
310 Leger Road, North Huntingdon, PA 15642

Printed/typed Name	Title	Signature	Date (M/DD/YY)
	Driver		

11. Transport 2 (Acknowledgement of receipt of materials)
Address and telephone No.

Printed/typed Name	Title	Signature	Date (M/DD/YY)

12. Discrepancy indication space

13. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in item #12

Printed/typed Name	Title	Signature	Date (M/DD/YY)
Andrea Dillman		Andrea Dillman	4-3-00

revised 7/27/95

WHITE - Transporters Copy YELLOW - Generators Copy PINK - Disposal Facility Copy GOLD - Office Copy

APPENDIX
F

APPENDIX F

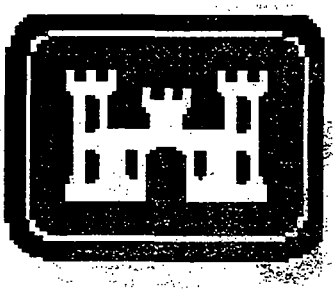
LEAD REPORTS

INTERNATIONAL TECHNOLOGY CORPORATION

FINAL REPORT

RANGE CLEANUP, SSG GUS KEFURT
U.S. ARMY RESERVE CENTER (OH069)
YOUNGSTOWN, OH

Contract No. DACA 27-99-D-0021
Delivery Order No. 0003



Submitted to:

U.S. Army Corps of Engineers
Louisville District
Environmental Engineering Branch

Prepared by:

IT Corporation
312 Directors Drive
Knoxville, Tennessee 37923-4799

September 22, 2000

Table of Contents

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1.0 Introduction

This document presents the report for cleanup activities at the former 88th RSC facility located at 399 Miller Street in Youngstown, Ohio 44507 (Figure 1-1). The cleanup activities were based on the Scope of Work (SOW) provided by the U.S. Army Corps of Engineers (USACE) Louisville District (CELRL) and a site inspection conducted on January 6, 2000.

1.1 Property/Project Identifiers

- Facility Identification Number: OH069
- State: Ohio
- Facility Name: SSG Gus Kefurt U.S. Army Reserve Center (USACE)
- City: Youngstown.

1.2 Site Description

The site occupies approximately 4.8 acres in an older, residential section of Youngstown (Figure 1-2). The facility consists of two buildings totaling 34,800 square feet and was used as a 400-man army reserve center from the 1950's to 1994. The center provided office, storage, and classroom space and could be used as an emergency shelter. The main building was built in 1951. The vehicle maintenance shop was built in 1951. The facility is fenced and has an area of 4,440 square yards. The asphalt parking lot contains 95 spaces. The larger building is a 25,000 square foot, two-story cinderblock and brick building with a partial basement. The building contains a large assembly hall, classrooms, offices, armory storage areas, a small-arms firing range, kitchen facilities, and utility rooms.

The property is planned for transfer to Cardinal Mooney High School for use as an athletic complex. Details of past use can be found in the *Final Report, Environmental Baseline Study (EBS), SSG Gus Kefurt, U.S. Army Reserve Center (OH069), 399 Miller Street, Youngstown, Ohio 44507-1591*, dated October 1998.

The range is a 3-point range with an approximate inside width of 15 ft 7 in., inside length of 75 ft, and height of 9.33 ft, based on the engineer drawings entitled, 600-Inch U.S.A.R., Firing Range, Drawing Number 28-13-03, sheets 1-4, dated May 1980. The range was designed for pistol or M-16 firing with .22 caliber rim-fire adapter.

1.2.1 Inspection Information

1.2.1.1 Inspection Date

The range was inspected by USACE and IT Corporation personnel on January 6, 2000.

1.2.1.2 Inspection Team

- USACE Personnel – David Dierken, Project Scientist; and Robert Woods, Construction Inspector
- IT Corporation Personnel – William Scoville, Project Manager; Timothy Kling, Project Scientist; and William Ladie, Project Estimator.

1.2.1.3 Inspection Findings

Findings of the site inspection include:

- A trash can of unknown chemicals, assumed to be chemical warfare kits, was located in the basement
- The insulation on the hot water heating system piping was heavily damaged
- Paint was peeling throughout the building.

1.2.1.4 Summary of Previous Investigations

As noted above, an EBS was prepared in October 1998. The EBS concluded that asbestos is present throughout the facility and assumed that lead-based paint was present.

1.2.2 Pre-Cleanup Characteristics

1.2.2.1 Number of Firing Points

The range had three firing points.

1.2.2.2 Bullet Trap Characteristics: Steel deflector system and sand trap

1.2.2.3 Range Characteristics

The range, which is located in the basement (Figure 1-3), was constructed of the following:

- Floor – concrete

- Walls – concrete block and sound board for the first 30 ft
- Ceiling – acoustical tiles and concrete.

Other features included:

- Stored items, including desks
- Hot water pipes (two) protected by a steel deflector plate
- A small room located behind the firing line.

1.2.2.4 Suspect Asbestos Containing Materials (ACM) Inventory

The following materials were suspected of containing asbestos:

- Thermal system insulation (TSI) along the upper interior wall of the firing range
- Expansion joints on the air handling system.

1.2.2.5 Air Handling Systems Description

The air handling system at the site consisted of the following:

- Air handling system located near the firing line
- Air intakes to the assembly hall located near the hot water pipes along the side of the range
- Exhaust fan near the firing line.

1.2.2.6 Access Points

The only access to the firing range is via an entry door near the firing line.

1.3 Scope of Work

The scope of work, which was conducted in accordance with the Project Work Plan (IT, 2000), consisted of the following:

- Asbestos and Lead Based Paint Survey – a survey was conducted for asbestos and lead-based paint to determine the locations and extent of friable asbestos and flaking lead-based paint

- Friable Asbestos – all friable asbestos that was damaged was repaired, encapsulated, or removed.

- Paint – removed loose paint and collected and disposed of the paint chips.

- Range – completed cleanup including removal of lead fragments found in bullet trap of the indoor firing range and cleaning of the interior of the range in accordance with USACE guidelines.

The USARC recognized safety and health hazards from lead-dust in indoor rifle ranges. Regulations supporting remedies for cleanup did not exist in a specific form. Several sources related to cleaning methods and clearance sampling values were employed to develop the cleanup criteria for the floor, including:

- U.S. Department of Housing and Urban Development (HUD) Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing, June 1995 (Title X, Section 1017), Chapter 15: Clearance (HUD, 1995a)

- Navy Environmental Health Center Indoor Firing Ranges Industrial Hygiene Technical Guide, Technical Manual 6290.99-10 (Navy, 1999)

- Department of Labor, Occupational Safety and Health Administration, 29 CFR § 1926.62 Lead.

In an effort to establish clearance values that would release the indoor ranges as a room that may be reoccupied as a non-lead work area, a value of 200 µg/sf was derived. This value was based on the above reference documents as a value that has been selected by other federal agencies as acceptable.

2.0 Project Team

The project team involved with the cleanup activities included the following organizations and their representatives:

- The Client – 88th RSC

- The Construction Manager – USACE, Louisville District
  Contracting Officer's Representative – David Dierken
  Construction Inspector – Robert Woods

- The Contractor – IT Corporation
  Project Manager – Bill Scoville
  Site Supervisor – Bill Fenwick
  Site Safety Officer/Construction Quality Control (CQC) Engineer – Frank Kelly, Tim Kling, and Darren Martin

- Subcontractors
  Asbestos and Lead-Based Paint Inspection – Diamond Environmental, Stow, Ohio
  Asbestos Abatement – PDG Environmental, Export, Pennsylvania
  Asbestos Abatement Oversight – Diamond Environmental, Stow, Ohio
  Range Clearance Inspection and Sampling – EA Group, Mentor, Ohio
  Unknowns Characterization and Disposal – Clean Harbors Environmental, Cleveland, Ohio
  Vacuum Truck and Sand Pit Transportation – Clean Harbors Environmental, Cleveland, Ohio
  Sand and Decontamination Water Disposal Facility – Envirite, Canton, Ohio
  Debris Disposal Facility – Mahoning Landfill (Waste Management), New Springfield, Ohio
  Recycled Metal Facility – U.S. Trading, Inc., Youngstown, Ohio.

3.0 Project Activities

This section details the project activities performed at the former 88th RSC facility located at 399 Miller Street in Youngstown, Ohio. The project activities, which were conducted in accordance with the approved Project Work Plan (IT, 2000), consisted of the following:

- Asbestos and Lead-based Paint Inspections (Section 3.1)

- Range Cleanup (Section 3.2)
  - Removal and Disposal Activities
  - Range Cleaning Activities
  - Range Clearance Inspection and Sampling Activities
  - Waste Management, Transportation, and Disposal

- Asbestos Abatement (Section 3.3)
  - Removal and Disposal Activities
  - Site Monitoring
  - Confirmatory Sampling Activities
  - Waste Management, Transportation, and Disposal

- Other Project Activities (Section 3.4)
  - Disposal of unknown chemicals
  - Soil sampling.

The following sections discuss the operational details associated with the implementation of each of these activities.

3.1 Asbestos and Lead-based Paint Inspections

Diamond Environmental, LLC, Stow, Ohio, under a subcontract to IT Corporation, conducted an inspection for lead and asbestos on February 24 and 25, 2000. Mr. Keith Bickel, CHMM, REP, CAHES, conducted the inspection and collected bulk samples. Diamond Environmental's report is presented in Appendix A.

The scope of Diamond's investigation was intended to provide a sufficient amount of information to estimate the quantity of asbestos containing materials (ACM) and lead-based paint (LBP) surfaces, and included the following:

- An AHERA level inspection for ACM by a State of Ohio Licensed Asbestos Hazard Evaluation Specialist. The survey included:
  - Identifying all ACM and sample suspect materials in accordance with AHERA.
  - Analyzing (using polarized-light microscopy) the suspect ACM samples using a laboratory accredited by NIST under the National Voluntary Laboratory Accreditation Program (NVLAP)
- LBP inspection, which included:
  - Identifying all suspect LBP locations
  - Analyzing (using onsite XRF or off-site laboratory participating in the ELAP program) suspect LBP materials.

Thirty-three samples of possible asbestos containing materials (ACM) were collected by Diamond and analyzed by a NVLAP-accredited laboratory. As shown by the analytical results in Table 3-1 and the summary in Table 3-2, asbestos was determined to be present at the following locations within the building:

- Black mastic and black, tan, and gray floor tile (9-in. by 9-in.) throughout the building
- Thermal system insulation (TSI), consisting of white mag pipe insulation, aircell pipe insulation, and tan pipe insulation throughout the building
- Boiler room insulation on a large tank and a heat exchanger
- Gun range HVAC duct insulation.

Eleven paint chip samples were collected by Diamond and analyzed for lead. As shown by the analytical results in Table 3-3, the maximum lead content was 0.28 percent, which is below the 0.5 percent limit enabling the lead to be disposed of by normal means.

3.2 Range Cleanup Activities

Range cleanup activities commenced on February 28, 2000 and continued until August 2, 2000. Field reports and photographs of activities are included in Appendix B and Appendix C, respectively. Major schedule milestones include:

- Commenced field work on February 28, 2000
- Removed the steel bullet trap and demobilized the field crew on March 3 pending the completion of asbestos abatement activities in the range
- Remobilized field personnel on March 13 to complete the range cleanup activities
- Applied a water-based encapsulant on the range floor on March 29, 2000
- Conducted the clearance sampling on March 30, 2000, and demobilized pending receipt of clearance sampling results
- Remobilized to the site on July 31, 2000, for additional cleaning
- Collected final clearance samples on August 2, 2000; these samples demonstrated that the cleanup performance standards had been attained.

In summary, the following work was performed:

- Double-washed and HEPA-vacuumed the range, in accordance with HUD guidelines (HUD, 1995b)
- Achieved cleanup of range concrete floor surface to 200 µg/sf
- Removed and disposed of 10.79 tons of lead-contaminated sand
- Removed and recycled 8,910 pounds of scrap steel
- Removed and disposed of 6.36 tons of non-hazardous debris.

As part of the range preparations, six vaults with security doors required alteration to prevent the doors from closing and locking behind site personnel. No keys were available for the locks. Site personnel tack-welded pieces of metal onto the vault doorways to keep them from closing.

3.2.1 Removal and Disposal Activities

The range was prepared for lead cleanup activities by completion of the following actions:

- Removed the range fan and constructed a debris access route through the fan opening
- Wiped and cleaned the stored items and moved them to a location identified by USACE personnel.
- Removed and disposed of approximately 1,000 square feet of soundboard – this soundboard was affixed to the walls and ceiling in a cement-mortar base. Wide

pneumatic chisels were used to detach the soundboard from the walls and ceiling. This operation generated a considerable amount of dust and took 12 days.

- Removed, cut-up, and recycled approximately 4 tons of steel from the bullet deflector/backstop system. This activity required approximately 3 days. All scrap steel was decontaminated using a lead-clean solution.

- Removed, cut-up, and recycled steel from light protectors and bullet trap and placing it in scrap steel roll-off boxes. This activity required approximately 4 days. All scrap steel was decontaminated using a lead-clean solution.

- Removed and disposed of the overhead lights, acoustical tile on ceiling and walls, and other range accessories (e.g., firing line).

- Removed and disposed of the bullet trap sand – because the large volume of sand (approximately 7 cubic yards), the sand was removed from the basement range via a vacuum truck. This operation took 2 days (from March 23 through March 24) because the wet sand caused blockages in the vacuum hose. In addition, the load-out required two trips because the sand could not be evenly distributed in the vacuum truck.

3.2.2 Range Cleaning Activities

3.2.2.1 Initial Cleaning Activities – March 2000

With the completion of the removal activities, the firing range was cleaned in accordance with the procedures presented in the Housing and Urban Development (HUD) Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing, June 1995 (Title X, Section 1017), Chapter 14: Cleaning (HUD, 1995b). The HUD procedure, in general, specifies the following:

- Vacuuming with a high-efficiency particulate air (HEPA) vacuum

- Wash the floor with a three-bucket system (first bucket contains detergent, second is empty for wringing-out the mop, and the third is used for rinsing the surface)

- Final clearance vacuum with the HEPA vacuum.

To remove as much dust and remaining debris as possible, the firing range was vacuumed using a high-efficiency particulate air (HEPA) vacuum. All surfaces were vacuumed starting at the end farthest from the main entrance (the bullet trap area) and moving towards the main exit,

beginning with the top of each room, and working down. All vacuumed materials and remaining debris (e.g. wood, mop heads, and HEPA filters) were containerized in two 55-gallon drums.

To further dislodge dust from the surfaces, the vacuumed area was wet washed. IT Corporation site personnel prepared a cleaning solution of one part Lead-Clean™ to three parts water, in accordance with manufacturer recommendations. The area was wet mopped with string mops and mop buckets with wringers. The string mop head was dipped into the detergent wash in bucket No. 1. The floor was then mopped, and the mop head was squeezed out into bucket No. 2, which was an empty bucket. The steps were repeated. The third bucket of clean water was used to rinse the floor. All decontamination water was containerized in one 55-gallon drum.

After the floor had dried, a HEPA vacuum was used over the entire area to remove any remaining particles dislodged but not removed by the wet wash. The vacuuming began at the far end working toward the decontamination area.

Following the final HEPA-vac operation, a silicon-based encapsulant was then applied to the floor. The encapsulant used was:

> Severe Weather (a silconized waterproofing sealant for concrete and masonry) Product No. 90968, Manufactured by Enterprise Paint Co., a division of Valspar Corporation.

3.2.2.2 Final Cleaning Activities – July 31 through August 2, 2000

Because the clearance levels were not achieved based on clearance samples described in Section 3.3, additional floor cleaning activities were conducted from July 31 through August 2, 2000. Additional procedures employed included:

- Additional HEPA-vacuuming of the floor
- An initial floor wash using trisodium phosphate (TSP) as the cleaning agent and following the HUD three-bucket procedure. TSP solution remaining in the pores of the concrete was removed with a wet-dry vacuum.
- Double-rinsing of the floor using the HUD three-bucket procedure and clean water (instead of TSP). Water remaining in the pores of the concrete was removed with a wet-dry vacuum.

- Application of HMCS-101, manufactured by Chemical Solutions International (Houston, Texas). The HMCS-101 solution was scrubbed into the floor. After 1 hour of cleaning time, the HMCS-101 was removed from the pores of the concrete with a wet-dry vacuum.

- Triple-rinsing of the floor using the HUD three-bucket procedure and clean water (instead of TSP). Water remaining in the pores of the concrete was removed with a wet-dry vacuum.

In addition to the range area, additional areas cleaned included:

- Stairwell, first flight of stairs, and landing
- 10 ft into the room off the stairwell (on the basement level).

Three additional drums of wastewater were generated during this operation.

It should be noted that water seeps into the sand trap area. This water has been removed, but may pose a long-term maintenance problem.

3.2.3 Range Clearance Inspection and Sampling

3.2.3.1 Initial Clearance Inspection and Sampling – March 30, 2000

The range was initially cleared on March 30, 2000, based on the procedures described in HUD Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing, June 1995 (Title X, Section 1017), Chapter 15: Clearance (HUD, 1995a) and the Project Work Plan (IT, 2000).

Upon completion of cleaning activities and prior to clearance sampling, a visual inspection was conducted by Daniel Wood, CIH (CP 5866) of the EA Group, Mentor, Ohio, of the areas potentially affected by the lead hazard control project. The purpose of the inspection was to determine whether the work was completed as required on all interior surfaces treated, as specified in the original project scope, and as indicated in the project report, and whether visible settled dust or debris were present.

The visual examination included a surface-by-surface examination to determine whether the lead hazard control work was completed as required, and to determine if known or suspected lead-dust surfaces were still present in the range. Lead hazard removal verification was documented on a visual clearance form (Appendix D). The encapsulant presence was verified visually. All

interim controls were also verified visually to confirm stabilization of all lead dust surfaces including any friction or impact surfaces treated during the project being evaluated.

The visual examination verified the absence of visual dust in all rooms and on all surfaces treated. The absence of all waste and debris was also verified.

When acceptable visual examination results were received, clearance dust sampling commenced. Sampling activities began approximately 17 hours after completion of cleanup activities and 2 hours after application of the encapsulant. This time frame should have allowed for potentially lead-contaminated dust to settle. Clearance dust sampling consisted of collecting single-surface dust wipe samples and analyzing them for lead content to determine whether lead concentrations exceeded clearance criteria (the clearance standard for this project is 200 µg/sf and 2.16 mg/m^3.

A total of eight dust wipe samples were collected from the following locations:

- Five dust wipe samples from:
  - Gun Range Trap (001DT)
  - Gun Range Middle (002DT)
  - Near Firing Line (003DT)
  - Insulation around electrical box (005DT)
  - Outside door, in front of stairs (006DT)
- One duplicate sample (Gun Range Middle, 004DT)
- One field blank sample (007DT)
- One spike sample (008DT).

Figure 3-1 shows the locations where confirmatory samples were collected. Section 4.1 discusses the sampling procedures and analytical results presented on Table 4-1. These results indicate that the samples did not attain the clearance criteria of 200 µg/sf specified in the Project Work Plan (IT, 2000).

3.2.3.2 Final Clearance Inspection and Sampling – August 2, 2000

Because the initial samples did not attain the clearance criteria, additional cleaning was performed from July 31 through August 2, 2000, as discussed in Section 3.2.1.2. A total of five dust wipe samples were collected on August 2, 2000 from the following locations:

- Four dust wipe samples from:
  - 15 ft from Firing Line Trap (001DS)
  - Gun Range Middle (002DS)
  - Near Firing Line (004DS)
  - Outside door, in front of stairs (005DS)

- One duplicate sample (Gun Range Middle, 003DS).

The clearance inspection and dust wipe sample collection forms and analytical results are included in Appendix E. Figure 3-1 shows the locations where confirmatory samples were collected. Section 4.1 discusses the sampling procedures and analytical results presented on Table 4-1.

3.2.4 Waste Management, Transportation, and Disposal

One composite sample was collected on March 2, 2000, from each of the following waste streams and analyzed by Quanterra Incorporated (North Canton, Ohio) for Toxicity Characteristic Leaching Procedure (TCLP) metals:

- Paint Chips
- Bullet Trap Sand
- Acoustical Tile and Sound Board.

As indicated by the analytical results presented in Table 3-4, the sand was a characteristic hazardous waste due to an elevated lead level (1,490 mg/L). A copy of the analytical report is provided in Appendix F.

Based on these analytical results, a D008 hazardous waste code was applied to the sand, and the following materials were shipped offsite as hazardous waste:

- Two vacuum truck loads, containing a total of 10.75 tons of lead-contaminated sand, were transported by Clean Harbors on March 23 and March 27, 2000 to Envirite of Ohio, Inc., in Canton, Ohio, for treatment and subsequent landfilling

- Two drums of residual sand were also taken to Envirite by Autumn Industries on March 31, 2000 for treatment and landfilling

- One drum of lead contaminated decontamination water was also transported by Autumn Industries to Envirite on March 31, 2000 for treatment.

Table 3-5 summarizes these hazardous waste shipments. Copies of the hazardous waste manifests are provided in Appendix G.

In addition, three drums of decontamination water were generated during the floor cleaning conducted from July 31 through August 2, 2000. As shown by the data in Table 3-4, this water contains 46 mg/L of lead, rendering it a hazardous waste and making it subject to the D008 waste code. These drums were shipped to Envirite for disposal on September 1, 2000.

Non-hazardous waste generated during project activities and subsequently disposed of includes:

- Scrap Metal from the back stop and overhead light protectors – a total of 8,910 pounds of scrap metal were transported by IT Corporation to U.S. Trading, Inc., Youngstown, Ohio.

- Demolition debris including acoustical tile and sound-proofing board – a total of 6.36 tons of debris were transported by Waste Management, Inc., and disposed of at their Mahoning Landfill, New Springfield, Ohio, on March 28 and 31, 2000.

Table 3-6 summarizes these non-hazardous waste shipments. Copies of the non-hazardous waste manifests are provided in Appendix H.

3.3 Asbestos Abatement

3.3.1 Removal and Disposal Activities

Asbestos abatement activities were performed by PDG Environmental, Export, Pennsylvania, from March 21 through March 30, 2000. The work was monitored by an industrial hygienist from Diamond Environmental, Stow, Ohio. Diamond's report of asbestos abatement activities, including disposal certificates, is included in Appendix I. In summary, the asbestos abatement activities consisted of:

- Glovebag removal of approximately 1,467 lf of asbestos-containing pipe insulation
- Removal of 200 sf of non-friable asbestos-containing floor tile
- Removal of 20 sf of non-friable asbestos-containing duct insulation
- Repair, by wrapping, of 723 lf of asbestos-containing pipe insulation.

Approximately 2,320 lf of asbestos-containing insulation was left in place and did not require repair.

3.3.2 Site Monitoring

Air monitoring for asbestos was conducted by Diamond Environmental, LLC throughout ACM removal and repair activities. A copy of the air monitoring results is provided in Appendix I. Table 3-7 summarizes the clearance sample results.

3.3.3 Waste Management, Transportation, and Disposal

PDG Environmental removed 281 bags (approximately 25 cy) containing ACM for landfilling at Valley Landfill, in Irwin, Pennsylvania on April 3, 2000. Appendix I contains a copy of the waste disposal form.

3.4 Other Project Activities

Other project activities included the disposal of unknown chemicals and soil sampling outside of the window well that was used for the range venting system.

A trash can of unknown chemicals was field tested through labpack fingerprint procedures on April 21, 2000 by a chemist from Clean Harbors Environmental Services Company, Cleveland, Ohio. Upon determining, through fingerprint procedures on two samples, that the materials were compatible, the chemicals were consolidated into two laboratory pack drums for disposal at the Clean Harbors facility.

In conjunction with the additional range cleanup activities performed from July 31 through August 2, 2000, three soil samples were collected from outside the range at the following locations described on Table 3-8 and shown on Figure 3-1:

- SS01 – 1 ft west of the window well. This sample contained 59 mg/kg of lead
- SS02 – 14 ft 8 in. west of the window well. This sample contained 160 mg/kg of lead
- SS03 – 24 ft 10 in. west of the window well. This sample contained 39 mg/kg of lead.

The samples were analyzed by DataChem Laboratories, Cincinnati, Ohio. Sample collection forms and analytical reports are included in Appendix E.

4.0 Sample Collection and Analysis

4.1 Lead Wipe Sampling Summary

4.1.1 Initial Clearance Sampling, March 30, 2000

To confirm that the lead contamination had been removed from the floor of the range, personnel from the EA Group collected the samples described in Section 3.2.1.3 on March 30, 2000. The sampling was conducted in accordance with the project Work Plan, portions of which were provided to EA Group. Horizontal surfaces selected by IT Corporation were sampled to determine total lead content in the settled dust. The samples were collected in accordance with ASTM's Standard Practice for Field Collection of Settled Dust Samples Using Wipe Sampling Methods for Lead Determination by Atomic Spectrometry Techniques (E 1728). Wipe materials were as specified in Standard Specification for Wipe Sampling Materials for Lead in Surface Dust (E 1792). The wipe samples were generally collected over a 1-sf area following an "S" pattern from side-to-side, folded in half, and wiped over the same area at a 90° angle to the first "S" pattern (top-to-bottom). The sample from the electrical panel wall (88OHYOU00MAR30-005DT) was limited to a ¾-sf area due to the size of the surface sample. Latex gloves were changed between sampling episodes. Samples were then returned to the glass scintillation vials, sealed, and labeled for transport to the laboratory.

One field blank and one spike sample were also prepared and submitted for analysis. The field blank was prepared by removing and replacing the cap of the vial in the sampling area. A spike sample was prepared in the laboratory by treating sampling media with a known quantity of lead dust.

All lead in dust wipe samples were acid digested in accordance with USEPA Method SW-846 6010A. Results of the wipe sample analyses are summarized in Table 4-1 and are detailed in the laboratory analytical report provided in Appendix D. Wipe sample locations are shown on Figure 3-1. A copy of the Visual Clearance Form and the Dust Sampling Form are also provided in Appendix D.

The analytical results in Table 4-1 may be summarized as follows:

- The range floor had lead levels from 920 µg/sf (near the firing line) to 5,450 µg/sf (near the bullet trap)

- The wall, near the electrical panel, had a lead level of 157 µg/sf
- The floor outside the range had a lead level of 12,600 µg/sf.

Because the range floor exceeded the clearance criteria of 200 µg/sf, additional cleaning was performed from July 31 through August 2, 2000.

4.1.2 Final Clearance Sampling, August 2, 2000

Following the completion of additional cleaning activities, five additional wipe samples were collected on August 2, 2000, and analyzed by DataChem Laboratories, Cincinnati, Ohio. All lead in dust wipe samples were acid digested in accordance with USEPA Method SW-846 6010A. Results of the wipe sample analyses are summarized in Table 4-1 and are detailed in the laboratory analytical report provided in Appendix E. Wipe sample locations are shown on Figure 3-1. A copy of the Visual Clearance Form and the Dust Sampling Form are also provided in Appendix E.

The analytical results in Table 4-1 may be summarized as follows:

- The range floor had lead levels below the 200 µg/sf clearance criteria; the levels ranged from <20 µg/sf (near the firing line) to 140 µg/sf (near the middle of the range)
- The floor outside the range had a lead level of <20 µg/sf.

Thus, based on these results, the clearance criteria of 200 µg/sf has been attained.

4.2 Soil Sampling Summary

As noted in Section 3.4, three soil samples were collected from outside the range at the following locations described on Table 3-8 and shown on Figure 3-1:

- SS01 – 1 ft west of the window well. This sample contained 59 mg/kg of lead
- SS02 – 14 ft 8 in. west of the window well. This sample contained 160 mg/kg of lead
- SS03 – 24 ft 10 in. west of the window well. This sample contained 39 mg/kg of lead.

The samples were analyzed by DataChem Laboratories, Cincinnati, Ohio, using with USEPA Method SW-846 6010A. Sample collection forms and analytical reports are included in Appendix E.

4.3 Air Monitoring Sampling Summary

IT Corporation contracted Diamond Environmental, LLC to perform airborne asbestos monitoring services. Monitoring was conducted on March 20, 21, 22, 23, 24, 27, 28, 29, 30, and 31, 2000.

Air monitoring consisted of taking background, personal, excursion, and perimeter samples throughout this project to comply with Ohio Department of Health (ODH), Occupational Safety and Health Administration (OSHA) and Environmental Protection Agency (EPA) rules and regulations during asbestos abatement, repair, and clean-up.

All air samples were analyzed by phase contrast microscopy in accordance with the National Institute of Occupational Safety and Health (NIOSH) Method 7400A, Issue 2. The use of a phase contrast microscope is limited to counting all fibers, including non-asbestos fibers. A copy of the monitoring report is provided in Appendix I.

5.0 Conclusions

In total, all the range structures associated with the indoor range at the SSG Gus Kefurt US Army Reserve Center, Youngstown, Ohio, were successfully removed, characterized for disposal, and properly disposed of as indicated below:

- Hazardous, Lead Contaminated Waste – 10.79 tons of sand, two drums of debris, and four drums of water
- Non-hazardous Waste – 6.36 tons of debris
- Recycled Metal – 8,910 pounds.

In addition, two drums of unknown chemicals were disposed of as lab pack materials, and 25 cy of ACM was disposed as regulated waste.

All removal activities were performed as specified in the project scope of work and Work Plan, using direct Health and Safety support involving real-time personnel and area air monitoring.

The clearance wipe samples document that the residual lead levels in the range concrete are below the clearance level of 200 µg/sf. Based on the criteria established for the project, no further actions are necessary.

6.0 References

HUD, 1995a. Housing and Urban Development (HUD) Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing, Title X, Section 1017, Chapter 15: Clearance. June 1995.

HUD, 1995b. Housing and Urban Development (HUD) Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing, Title X, Section 1017, Chapter 14: Cleaning. June 1995.

IT Corporation, 2000. Draft Work Plan, Range Cleanup, SSG Gus Kefurt U.S. Army Reserve Center (OH069), Youngstown, Ohio. February 2000.

Navy, 1999. Indoor Firing Ranges Industrial Hygiene Technical Guide, Navy Environmental Health Center, Technical Manual NEHC-TM6290.99-10. December 1999.

TABLES

Table 3-1
Asbestos Sample Results (detects only)
SSG Gus Kefurt, U.S. Army Reserve Center
Youngstown, OH

Sample Number	Material	Location	Sample Date	Asbestos Content
02252000-14asb1	Duct insulation	Gun Range HVAC	2/25/00	Chrysotile asbestos 10%
02252000-14asb2	Duct insulation	Gun Range HVAC	2/25/00	Chrysotile asbestos 10%
02252000-14asb3	Duct insulation	Gun Range HVAC	2/25/00	Chrysotile asbestos 10%

Table 3-2
Asbestos-Containing Materials
SSG Gus Kefurt, U.S. Army Reserve Center
Youngstown, OH

Material	Location	Asbestos Content
Black Mastic	First Floor - Room G, 120 SF	Chrysotile asbestos 5%
	First Floor - Room H, 120 SF	
	First Floor - Room I, 120 SF	
	First Floor - Room J, 120 SF	
	First Floor - Room K, 120 SF	
Black Floor Tile	2,617SF throughout the building	Chrysotile asbestos 10%
Maroon Floor Tile	First Floor, Room M, 432 SF	Chrysotile asbestos 10%
	Room A6, Range Storage, 208 SF	
	Gun Range, 208 SF	
Other Floor Tile	First Floor, Room O, 322 SF	Chrysotile asbestos 12%
Tan Floor Tile	First Floor, Room W, 372 SF	Chrysotile asbestos 12%
Gray Floor Tile	First Floor, Room X, 389.5 SF	Chrysotile asbestos 12%
	First Floor, Room Y, 482 SF	
	First Floor, Room Z, 369 SF	
White Mag Pipe Insulation	3,737 LF throughout the building	Chrysotile asbestos 2%, Amosite Asbestos, 40%
Aircell Pipe Insulation	First Floor - Room F, 11 LF	Chrysotile asbestos 35%
	First Floor - Hallway (F-K), 48 LF	Chrysotile asbestos 35%
Tan Pipe Insulation	First Floor - Room G, 12 LF	Chrysotile asbestos 35%
Boiler Room Insulation	Large Tank, 35 SF	Chrysotile asbestos 15%, Amosite Asbestos, 25%
	Heat Exchanger, 112 SF	Chrysotile asbestos 15%, Amosite Asbestos, 25%
Duct Insulation	Gun Range, 36 SF	Chrysotile asbestos 10%

Table 3-3
Lead Paint Sample Results
SSG Gus Kefurt, U.S. Army Reserve Center
Youngstown, OH

Sample ID	Material	Sample Location	Sample Date	% Lead
02242000-01pb	White paint	South basement stairwell White with yellow undercoat	2/24/00	ND
02242000-02pb	Cream paint	Bay walls	2/24/00	ND
02242000-03pb	Cream paint	Roof rooms	2/24/00	0.025
02242000-04pb	Green paint	Men's changing room walls	2/24/00	0.250
02242000-05pb	Cream paint	Vault Room P	2/24/00	ND
02242000-06pb	White paint	Ceiling Room A3	2/24/00	ND
02242000-07pb	Yellow paint	Boiler room wall	2/24/00	0.052
02242000-08pb	White paint	Caged storage room wall	2/24/00	0.028
02242000-09pb	White paint	Caged area wall	2/24/00	ND
02242000-10pb	White paint	Caged area ceiling	2/24/00	ND
02242000-11pb	White paint	1st Floor stairwell (north)	2/24/00	ND

Table 3-4
Disposal Sample Analytical Results
SSG Gus Kefurt, U.S. Army Reserve Center
Youngstown, OH

Sample ID	Paint 1	Sand 1	Acoustic 1	Aug2001 WS	TCLP Regulatory Limit
Media	Solid	Solid	Solid	Water	
Sample Date	3/2/00	3/2/00	3/2/00	8/1/00	
TCLP Metals (mg/L)					
Arsenic	<0.50	<0.50	<0.50	not analyzed	5
Barium	<10	<10	<10		100
Cadmium	<0.10	<0.10	<0.10		1
Chromium	<0.50	<0.50	<0.50		5
Lead	**0.69**	**1490**	<0.50	**46**	5
Mercury	<0.0020	<0.0020	<0.0020	not analyzed	0.2
Selenium	<0.25	<0.25	<0.25		1
Silver	<0.50	<0.50	<0.50		5

Table 3-5
Hazardous Waste Disposal Log
SSG Gus Kefurt, U.S. Army Reserve Center
Youngstown, OH

Waste Type	Code	Shipment Date	Volume/ Weight	Transporter	TSD Facility	Manifest	Doc. #	Disposal Method
Sand	D008	3/23/00	6.44 tons	Clean Harbors of Cleveland	Envirite of Ohio, Inc.	N/A	03001	Solidification/landfill
		3/27/00	4.35 tons			N/A	03002	
Debris (wood, mop heads, HEPA filters and sand remnants)	D008	3/31/00	2 Drums	Autumn Industries	Envirite of Ohio, Inc.	N/A	03003	Solidification/landfill
Decontamination Water	D008	3/31/00	1 Drum	Autumn Industries	Envirite of Ohio, Inc.	N/A	03003	Treatment
	D008	9/1/00	3 Drums	Autumn Industries	Autumn Industries	N/A	00801	Treatment
Unknown Chemicals (Lab Pack)	D001	4/21/00	2 drums	Clean Harbors of Cleveland		N/A	42100	Incineration

Table 3-6
Non-Hazardous Waste Disposal Log
SSG Gus Kefurt, U.S. Army Reserve Center
Youngstown, OH

Waste Type	Shipment Date	Volume/ Weight	Transporter	TSD Facility	Manifest/ Bill of Lading	Disposal Method
Scrap metal	3/10/00	2,850 lbs	IT Corporation	U.S. Trading, Inc., Youngstown, OH	7726	Recycle
	3/10/00	1,850 lbs			7726	
	3/28/00	1,000 lbs			7739	
	3/28/00	1,100 lbs			7739	
	3/28/00	1,440 lbs			7739	
	3/28/00	450 lbs			7739	
	3/30/00	220 lbs			7741	
Demolition debris including acoustical tile and sound-proofing board	3/28/00	4.55 tons	Waste Management (Mahoning Landfill), New Springfield, OH		41401	Landfill
	3/31/00	1.81 tons			41820	
Asbestos contaminated media (ACM)	3/31/00	25 cy	PDG Environmental	Valley Landfill, Irwin, PA	991851	Landfill

Table 3-7
Asbestos Clearance Sample Results
SSG Gus Kefurt, U.S. Army Reserve Center
Youngstown, OH

Sample ID	Sample Location	Sample Date	Fibers/cm3 [1]
032400-Y-A01	Basement-south end gun range	3/24/00	<0.004
032400-Y-A02	Basement-central aisle gun range	3/24/00	<0.004
032400-Y-A03	Basement-north end in Room A6	3/24/00	<0.004
032800-Y-A06	1st Floor-south end room M	3/28/00	<0.004
032800-Y-A07	1st Floor-south end Room S	3/28/00	<0.004
032800-Y-A08	1st Floor-south west hallway	3/28/00	<0.004
032800-Y-A13	1st Floor-east side Room A	3/28/00	0.006
032800-Y-A14	1st Floor-east side Room C	3/28/00	0.008
032800-Y-A15	1st Floor-east side Room E	3/28/00	0.007
032900-Y-A05	1st Floor-inside Room J west	3/29/00	<0.004
032900-Y-A06	1st Floor-hallway west	3/29/00	<0.004
032900-Y-A09	1st Floor-west side Room F	3/29/00	<0.004
033000-Y-A01	Basement-stairwell at south end	3/30/00	0.006
033000-Y-A02	Basement-boiler room	3/30/00	0.007
033000-Y-A03	Basement-hallway at Room A2	3/30/00	0.006
033000-Y-A13	Basement-shower/restroom area	3/30/00	0.007
033000-Y-A14	Basement-shower/restroom area	3/30/00	0.006
033000-Y-A15	Basement-shower/restroom area	3/30/00	0.008
033000-Y-A16	2nd Floor-Room X	3/30/00	<0.004
033000-Y-A17	2nd Floor-Room A1 center	3/30/00	0.007
033000-Y-A18	2nd Floor-hallway at Room Z	3/30/00	0.007
033100-Y-A01	Basement-north hallway at Room	3/31/00	0.005
033100-Y-A02	Basement-hallway corridor south of shower	3/31/00	0.006
033100-Y-A03	Basement-stairwell at cage-south end	3/31/00	<0.004
033100-Y-A06	1st Floor-south west corner hallway	3/31/00	0.004
033100-Y-A07	1st Floor-north central bay area	3/31/00	<0.004
033100-Y-A08	1st Floor-east wall outside kitchen	3/31/00	0.006

[1] Result is blank corrected.

Table 3-8
Soil Sample Results
SSG Gus Kefurt, U.S. Army Reserve Center
Youngstown, OH

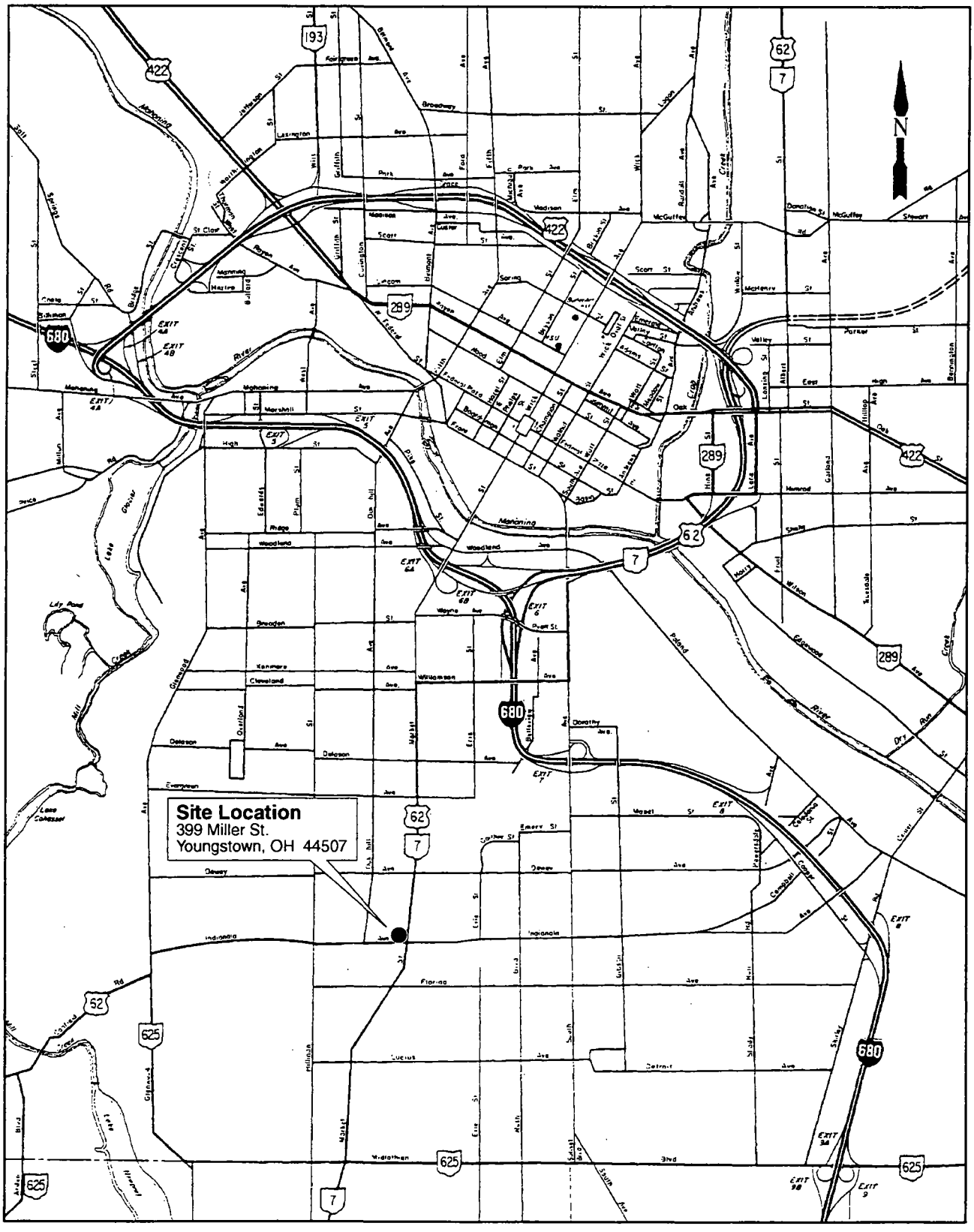
Sample ID	Sample Location	Sample Date	Lead Concentration (mg/kg)
88OHYOU 00AUG02 001SS	1 ft from Window Well	8/2/00	59
88OHYOU 00AUG02 002SS	14 ft 8 in. from Window Well	8/2/00	160
88OHYOU 00AUG02 003SS	24 ft 10 in. from Window Well	8/2/00	39

Table 4-1
Lead Wipe Clearance Sample Results
SSG Gus Kefurt, U.S. Army Reserve Center
Youngstown, OH

Sample ID	Sample Location	Sample Date	Lead, µg/ft^2 [1]
88OHYOU 00MAR30- 001 DT	Bullet trap	3/30/00	5,450
88OHYOU 00MAR30- 002 DT	Gun Range - middle		3,620
88OHYOU 00MAR30- 003 DT	Firing line		920
88OHYOU 00MAR30- 004 DT	Gun Range - middle		2,940
88OHYOU 00MAR30- 005 DT	Electrical box, sound board		157
88OHYOU 00MAR30- 006 DT	Outside door, in front of stairs		12,600
88OHYOU 00MAR30- 007 DT	Field blank		9.0
88OHYOU 00MAR30- 008 DT	Spike sample		88.5
88OHYOU 00AUG02- 001 DS	15 ft from Bullet trap	8/2/00	85
88OHYOU 00AUG02- 002 DS	Gun Range - middle		140
88OHYOU 00AUG02- 003 DS	Gun Range - middle		91
88OHYOU 00AUG02- 004 DS	Firing line		<20
88OHYOU 00AUG02- 005 DS	Stairwell		<20

[1] = Results expressed in micrograms per square foot (µg/ft^2) of surface area.

FIGURES



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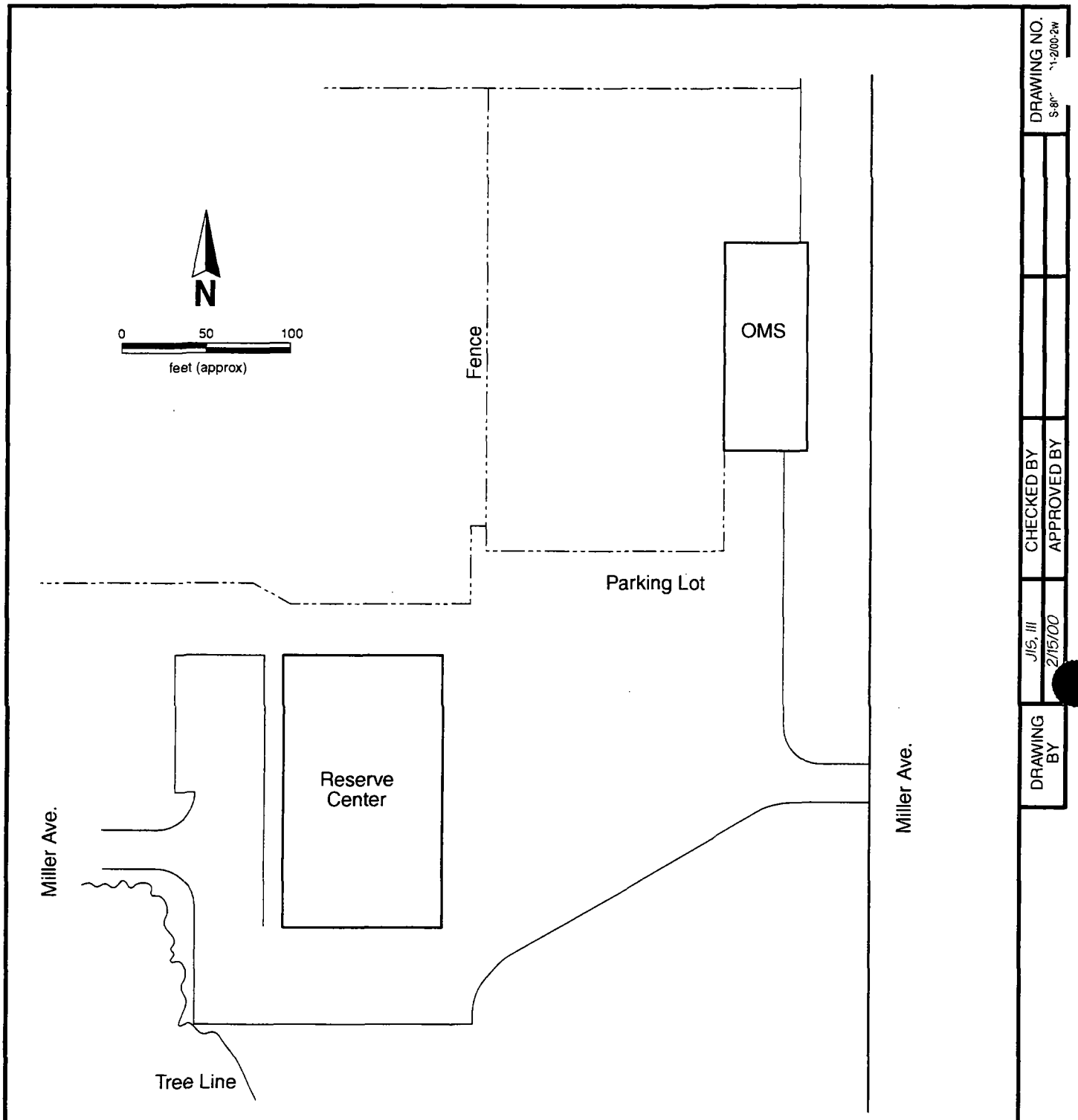
S-803248.01.2/00-1w	
CHECKED BY	
APPROVED BY	
JIS, III	
2/15/00	
DRAWING BY	

IT CORPORATION

Figure 1-1.
Site Location Map
Youngstown, OH Reserve Center



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JIS, III 2/15/00

DRAWING BY

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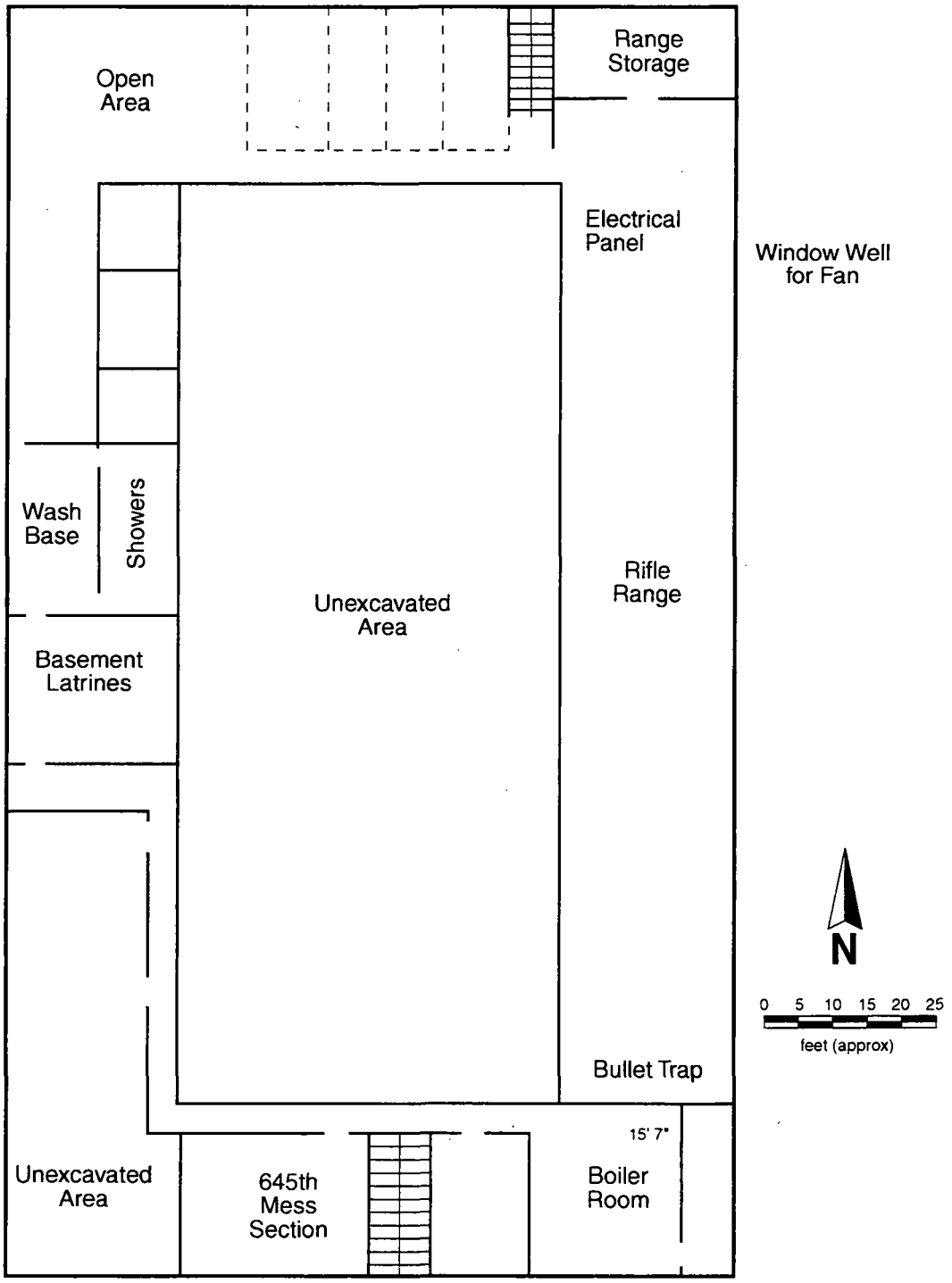
Figure 1-2.
Site Map
Youngstown, OH Reserve Center



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JIS, III		
2/15/00		

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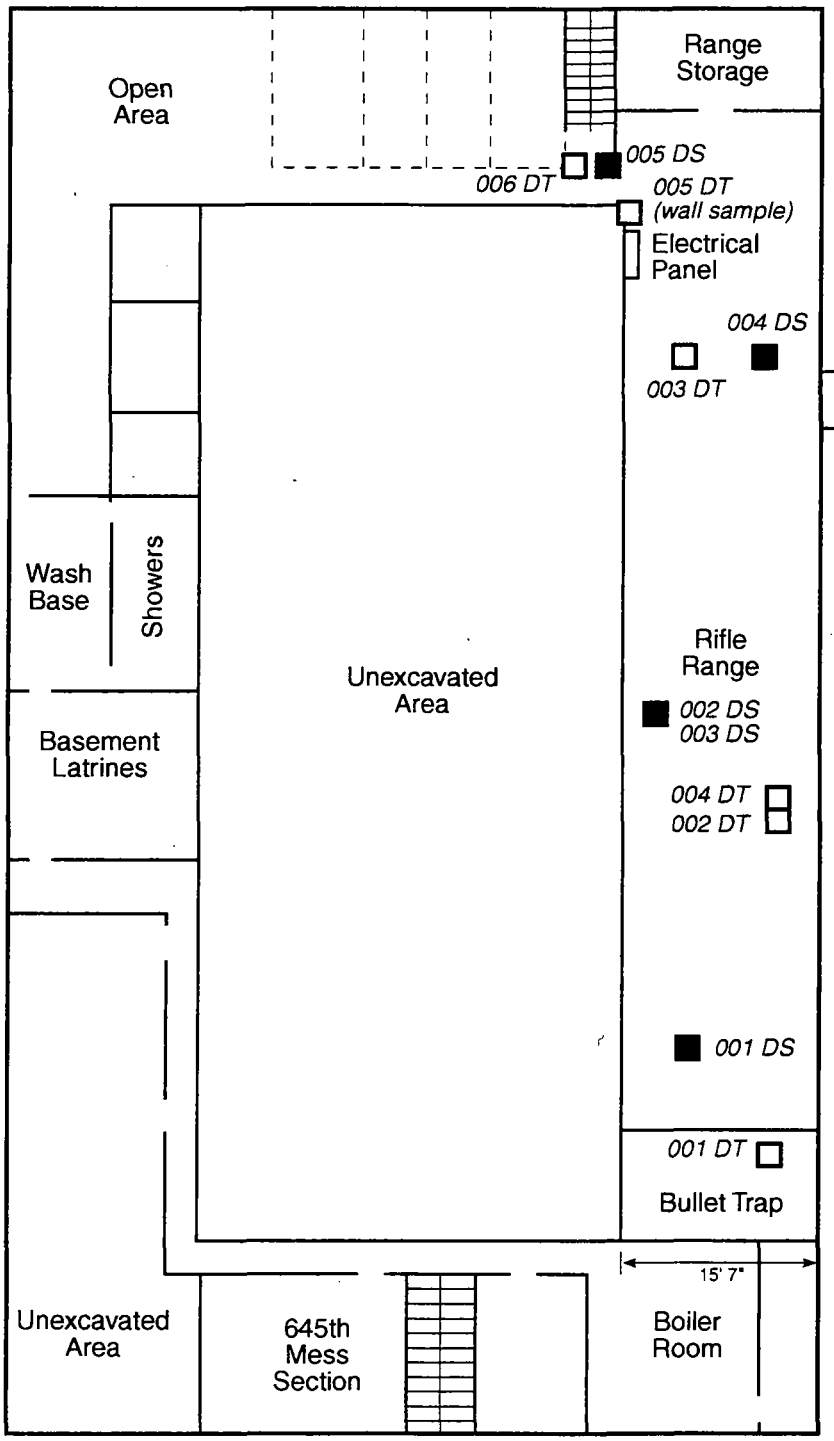
Figure 1-3.
Basement Floor Plan
Youngstown, OH Reserve Center



Legend

- *001 DT* Wipe Sample collected by EA Group – March 30, 2000
- *001 DS* Wipe Sample collected by IT Corporation – August 2, 2000
- *001 SS* Soil Sample collected by IT Corporation – August 2, 2000

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Figure 3-1.
Wipe and Soil Sample Locations
Youngstown, OH Reserve Center

DRAWING NO.
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APPROVED BY
JIS, III
2/15/00
DRAWING BY

EA GROUP

October 11, 2000
(Revised March 23, 2001)

Mr. William Scoville
IT Corporation
11499 Chester Road
Cincinnati, Ohio 45246

RE: **Lead Risk Assessment and Lead-Based Paint Inspection**
Kefurt USARC, 399 Miller Street, Youngstown, Ohio
OH29765

Description of Work

EA Group, Mentor, Ohio was contracted by IT Corporation to perform a lead risk assessment and lead-based paint inspection of the SSG Gus Kefurt U.S. Army Reserve Center (USARC) at 399 Miller Street in Youngstown, Ohio. Surveying was performed by EA Group representative Mr. Edward Luiza, Lead Risk Assessor (License #OH 000444) on September 27, 2000. Assessment activities included testing of painted surfaces by x-ray fluorescence (XRF) and surface dust sampling and analysis for total lead content.

The following exceptions to the assessment and inspection activities are noted:

- Exterior paint on windows could not be assessed because the windows are boarded up.
- The ceiling in the "Drill Hall" could not be assessed because it is too high (~30 feet).
- No soil samples were collected because there is no bare soil or play areas around the building.

Lead Based Paint Inspection

Surfaces assessed for this inspection included doors; door casings and frames; walls, upper and lower; window sashes; stair stringers, treads, and handrails; newel posts; ceilings; vents (noted as "radiators"); I-beams; HVAC ducts; and, window guards. The condition of the paint ranged from good to poor. The *XRF Summary Analysis* in Appendix A provides descriptions of the various components tested and their substrates. The areas surveyed are illustrated on Figures 1 and 2, attached.

XRF Testing Procedures

All testing was conducted using a Scitec™ MAP 4 Spectrum Analyzer which is a portable, in-situ measuring instrument that uses x-ray fluorescence (XRF) to test for lead in paint. The MAP 4 sends a packet of energy in the form of a gamma ray photon into the sample material (e.g., paint on a wall). Some of these gamma rays strike electrons in the inner shells of atoms in the sample material, dislodging them from their orbit. Having lost an electron, the atoms become unstable, or "excited". To regain stability, each atom fills the gap left by the lost electron with an electron from one of its outer shells. This causes the release of an x-ray photon. This photon has an energy level that is "characteristic" of the type of element (i.e., lead) that it came from. The MAP 4 measures the energy

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level and quantity of returning x-ray photons to determine the amount of lead present at the sample point. This information is stored in the instrument and then downloaded to a computer for report generation.

The instrument is positioned flat against the suspect surface, and the surface exposed to an x-ray beam for a given period of time. For the inspection, the "Unlimited" mode was used. The MAP 4 instrument tests until the K-shell result is indicated relative to a predetermined action level, which is 1.00 milligrams per square centimeter (mg/cm^2) for these types of surveys, and precision, or until the reading is terminated by releasing the trigger. In accordance with the HUD Guidelines, only K-shell energy spectra were used to calculate lead concentrations.

The spectrum analyzer gives direct readings of lead concentration, in mg/cm^2. An initial test was first performed and the results evaluated. Surfaces that resulted in a lead concentration greater than or equal to 1.2 mg/cm^2 were classified as *lead-based* paint; surfaces that resulted in a lead concentration less than or equal to 0.9 mg/cm^2 were classified as non-lead-based paint. Those surfaces that were greater than 0.9 but less than 1.2 mg/cm^2 were classified as inconclusive. The HUD Guidelines require that inconclusive results either be considered positive for lead or a paint-chip sample be secured for analysis by a laboratory recognized by the EPA National Lead Laboratory Accreditation Program (NLLAP). The Laboratory Division of EA Group is a recognized NLLAP Laboratory (AIHA #9325).

According to Chapter 7 of the HUD Guidelines and the manufacturer's *XRF Performance Characteristics Sheet*, calibration checks are taken in the test mode using National Institute of Standards and Technologies (NIST) Standard Reference Material (SRM No. 2579) red paint film with a lead concentration of 1.02 mg/cm^2, backed by a common building material (wood). Initial daily calibration checks and on-site calibration checks were within the recommended ranges. The *Daily Calibration* check results are provided in Appendix C.

XRF Sampling Results

Ten of the components tested contained lead-based paint. Statistical results for all units tested are presented in the *Summary Analysis* tables in Appendix A. Results for individual units are presented on *XRF Inspection Results* reports in Appendix B and indicate the specific area, wall, component, substrate, paint condition, K-Shell reading (in mg/cm^2), MAP #, type of test, and result of test (positive, inconclusive, or negative). Walls are identified as "A", "B", "C", and "D", with wall "A" being the north wall.

Lead in Dust Wipe Sampling and Analysis

Sampling was conducted in accordance with IT Corporation's *Wipe Sampling for Settled Lead-Contaminated Dust* protocol, portions of which were provided to EA Group. Lead in dust wipe samples were secured over a 1 square-foot area following an "S" pattern from side-to-side, folded in half, and wiped over the same area at a 90° angle to the first "S" pattern (top-to-bottom). Latex gloves were changed between sampling episodes. Samples were then returned to the glass scintillation vials, sealed, and labeled for transport to the laboratory. Chain-of-custody protocol was maintained.

A total of 20 samples were secured in 14 areas in the facility. The general sample locations and the results are summarized in the attached table and illustrated on Figures 1 and 2, attached. Two field blanks were also prepared and submitted for analysis. The field blanks were prepared by removing and replacing the cap of the vial in the sampling area.

All lead in dust wipe samples were acid digested in accordance with U.S. EPA Method SW-846 6010A by a Corps of Engineers certified laboratory (Specialized Assays Environmental, Nashville, Tennessee). The Laboratory Analytical Report is provided in Appendix D. All results are expressed in micrograms per square foot ($\mu g/ft^2$) for lead in dust samples, except the blanks, which are in μg/wipe.

Summary and Recommendations

According to the *Guidance for Lead-Based Paint Hazard Management During Transfer of Army Real Property* (March, 2000), the guidance is not applicable to "transfer of non-residential real property, except where there is a reasonable certainty that the reuse after transfer will be for residential or child-occupied facility use." (Sec. 2.b.(5)).

If the intended reuse of the real property after transfer is for residential or child-occupied facility use, the "transferee will abate lead-based paint hazards prior to occupancy of converted non-residential real property." (Sec. 4.c.(6)).

Based on the results of this survey and assuming the reuse will be for residential or child-occupied facility use, a lead-based paint risk hazard exists due to the following:

- Deteriorated lead-based paint on basement window sashes
- Dust on floor surfaces containing more than 40 $\mu g/ft^2$ of lead

No other recognized lead-based paint hazards were determined to be present at the facility.

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Based on the lead-based paint inspection and dust wipe sampling conducted, the following actions would be recommended, assuming the reuse will be for residential or child-occupied facility use:

1. Lead-based paint on the window sashes should be abated.
2. Lead containing dust should be removed from the floors.

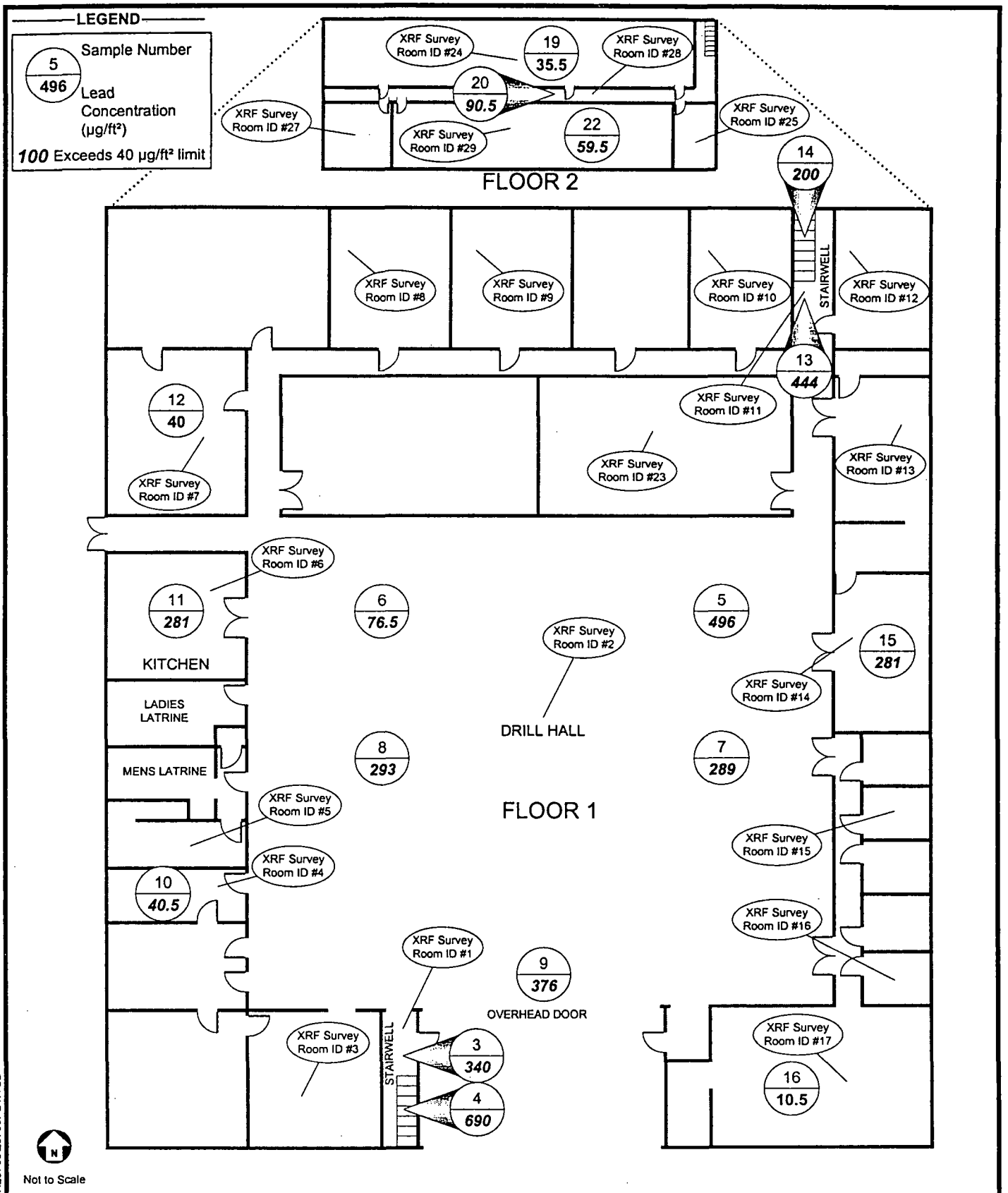
If the intended reuse will not be for residential or child-occupied facility use, no actions are required by the *Guidance for Lead-Based Paint Hazard Management During Transfer of Army Real Property*. However, any activities that will affect the sample paint is covered by the Occupational Safety and Health Administration (OSHA) Construction Industry Standard for Lead (29 CFR 1926.62). This OSHA standard should be reviewed before any lead paint activities are conducted. The OSHA standard requires certain controls to reduce or maintain worker exposures less than the Permissible Exposure Limit (PEL) of 50 µg of lead per cubic meter (µg/m^3). The employer must protect the worker from lead exposure until an exposure assessment is completed and shows that the exposure is less than the PEL. If the paint is to be removed or disturbed, the OSHA Construction Industry Standard for Lead should be followed. Paint containing high concentrations of lead would be of more concern than that containing low concentrations, but all paint containing lead must be considered a potential exposure hazard depending on how it is being treated. The same would be applicable for the lead-containing dust.

If you have any questions or concerns regarding the above information, please contact the undersigned. Thank you for consulting EA Group.

Sincerely,

EA Group

Timothy S. Bowen,
Vice President-Operations



General Locations of Lead Dust Wipe Samples and Results
SSG Gus Kefurt U.S. Army Reserve Center, 399 Miller Street, Youngstown, Ohio
IT Corporation, Cincinnati, Ohio

Drawn by: VMB	Reviewed by: TSB	EAG Project No. OH29765	Date: October 5, 2000	Rev. No. 0	Figure No. 1

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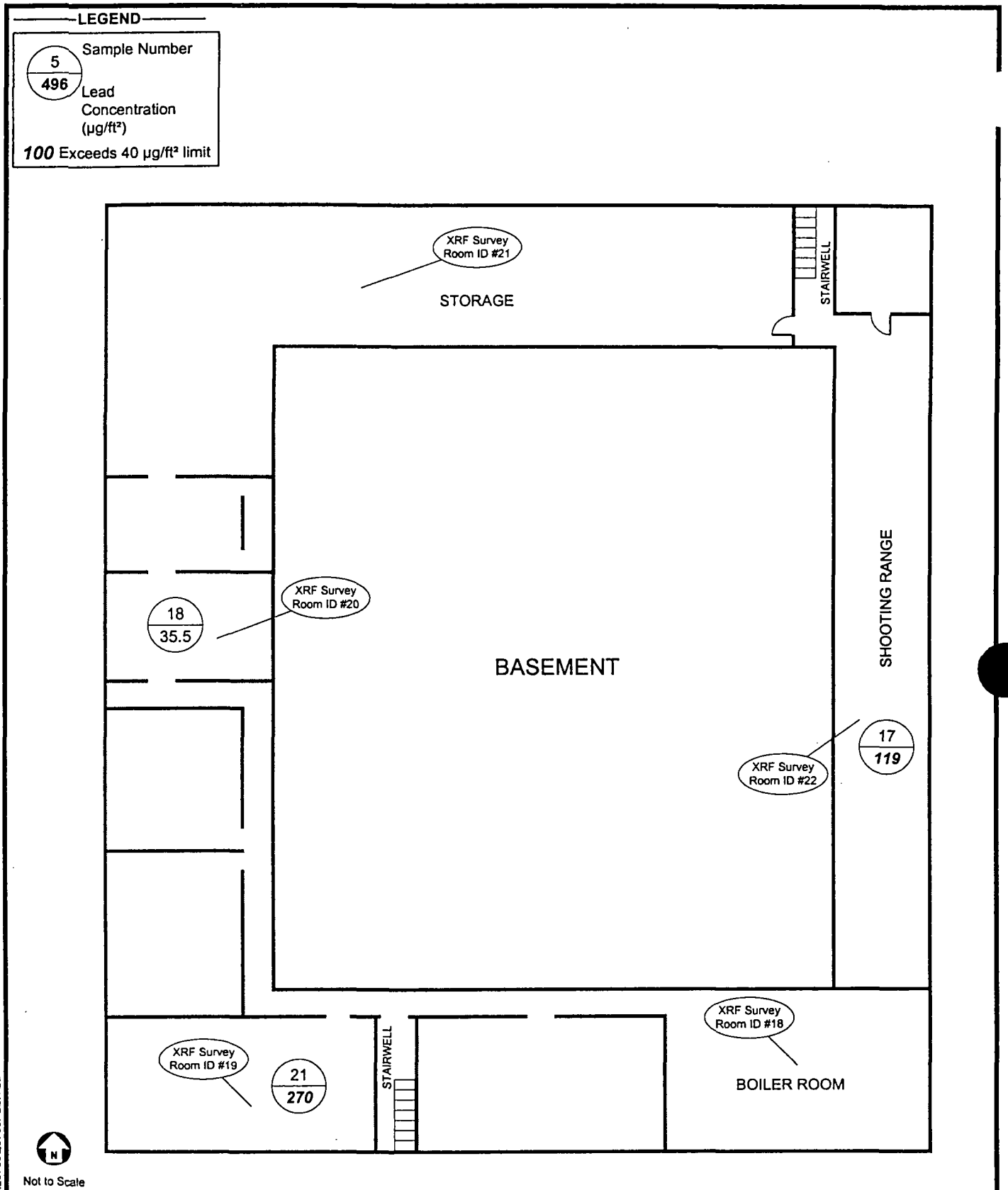
EA GROUP



General Locations of Lead Dust Wipe Samples and Results
SSG Gus Kefurt U.S. Army Reserve Center, 399 Miller Street, Youngstown, Ohio
IT Corporation, Cincinnati, Ohio

Drawn by: VMB	Reviewed by: TSB	EAG Project No. OH29765	Date: October 5, 2000	Rev. No. 0	Figure No. 2

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LEAD SURFACE WIPE SAMPLING LOG and RESULTS

Client: IT Corporation EAG No. OH 29765

Project: SSG Gus Kefurt U.S. Army Reserve Center - Youngstown, Ohio

Sample Type: Initial Survey

Sample ID	Room ID #	Surface Code	Surface Area	Lead Result 09/27/00	Sample Location
OH29765- 01				< 2.5	[Field Blank]
OH29765- 02				< 2.5	[Field Blank]
OH29765- 03	1	SL	1 sq ft	**340**	
OH29765- 04	1	ST	1 sq ft	**690**	
OH29765- 05	2	FL	1 sq ft	**496**	NE
OH29765- 06	2	FL	1 sq ft	**76.5**	NW
OH29765- 07	2	FL	1 sq ft	**289**	E - middle
OH29765- 08	2	FL	1 sq ft	**293**	W - middle
OH29765- 09	2	FL	1 sq ft	**376**	S, by overhead door
OH29765- 10	4	FL	1 sq ft	**40.5**	
OH29765- 11	6	FL	1 sq ft	**281**	
OH29765- 12	7	FL	1 sq ft	40.0	
OH29765- 13	11	SL	1 sq ft	**444**	
OH29765- 14	11	ST	1 sq ft	**200**	
OH29765- 15	14	FL	1 sq ft	**281**	
OH29765- 16	17	FL	1 sq ft	10.5	
OH29765- 17	22	FL	1 sq ft	**119**	Basement
OH29765- 18	20	FL	1 sq ft	35.5	Basement
OH29765- 19	24	FL	1 sq ft	35.0	Floor 2
OH29765- 20	28	FL	1 sq ft	**90.5**	Floor 2
OH29765- 21	19	FL	1 sq ft	**270**	Basement
OH29765- 22	29	FL	1 sq ft	**59.5**	Floor 2

Results expressed in micrograms per square foot (µg/ft²).
Sampling date(s) shown under "Lead Result".
sq ft = square foot sq in = square inch
Comments: Bold print identifies values that exceed 40 µg/ft² limit for residential or child-occupied facility reuse.

Surface Codes:

FL	Floor
WW	Window Well
WS	Window Sill
ST	Stair Tread
SL	Stair Landing

Sample Location Codes:

WDW	Window	RR	Restroom/Bathroom
DR	Dining Room	N	North
K	Kitchen	S	South
BR1	Bedroom 1	E	East
BR2	Bedroom 2, etc.	W	West
FR	Family Room	IWA	Inside Work Area
EF	Entrance Foyer	OWA	Outside Work Area

Inspector: Edward Luiza **Lead Risk Assessor No.** OH000444 **Signature:** E.R.Luiza

Date(s): September 27, 2000

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APPENDIX A

XRF Summary Analysis

EA Grou
7118 Industrial Park Blvd.
Mentor, Ohio

Summary Analysis

Customer: IT Corporation
OH29765

Project Name: Lead-Based Paint Inspection

Site Name: 399 Miller Street, Youngstown,Ohio

Action Level 1.000 mg /cm2 Lab 0.000

Comp	Component Name	Number Tested	Num Pos (%)	Num Neg (%)	Num Incl (%)	Lab Tested	Lab Pos (%)	
1	Door-Wood	9	0 (0 %)	9 (100 %)	0 (0 %)	0	0 (0 %)	
2	Door-Metal	7	0 (0 %)	7 (100 %)	0 (0 %)	0	0 (0 %)	
3	Door Casing	15	0 (0 %)	15 (100 %)	0 (0 %)	0	0 (0 %)	
4	Wall	64	0 (0 %)	64 (100 %)	0 (0 %)	0	0 (0 %)	
6	Window Sash	16	2 (12 %)	12 (75 %)	2 (12 %)	0	0 (0 %)	
14	Stair Riser	1	1 (100 %)	0 (0 %)	0 (0 %)	0	0 (0 %)	
15	Stair Stringer	3	2 (66 %)	1 (33 %)	0 (0 %)	0	0 (0 %)	
16	Stair Handrail	4	3 (75 %)	1 (25 %)	0 (0 %)	0	0 (0 %)	
17	Newel Post	2	2 (100 %)	0 (0 %)	0 (0 %)	0	0 (0 %)	
20	Ceiling	18	0 (0 %)	18 (100 %)	0 (0 %)	0	0 (0 %)	
21	Upper Wall	12	0 (0 %)	12 (100 %)	0 (0 %)	0	0 (0 %)	
22	Lower Wall	16	3 (18 %)	13 (81 %)	0 (0 %)	0	0 (0 %)	
23	Radiator	3	2 (66 %)	1 (33 %)	0 (0 %)	0	0 (0 %)	
31	Garage Door	6	3 (50 %)	3 (50 %)	0 (0 %)	0	0 (0 %)	
38	Garage DrFrm	2	2 (100 %)	0 (0 %)	0 (0 %)	0	0 (0 %)	
39	"I" Beam	5	0 (0 %)	5 (100 %)	0 (0 %)	0	0 (0 %)	
40	HVAC Duct	2	0 (0 %)	2 (100 %)	0 (0 %)	0	0 (0 %)	
41	Window Guard	3	3 (100 %)	0 (0 %)	0 (0 %)	0	0 (0 %)	
Total Reported		188	23	163	2	0	0	

No Averaging Selected

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APPENDIX B

XRF Inspection Report(s)

EA Group
7118 Industrial Park Blvd.
Mentor, Ohio

Preliminary XRF

Customer: IT Corporation
OH29765

Project Name: Lead-Based Paint Inspection

Site Name: 399 Miller Street, Youngstown,Ohio

Action Level 1.000 mg /cm2 Lab 0.000

Total Assays Reported 188

#	Site	Room Tested	#	Wall	Component	Substrate	Paint Condition	K-Shell mg/cm2	L-Shell mg/cm2	Map #	Type	Result
15452	0001	Exterior	1	C	Door-Metal	Steel	Good	-0.242 S	0.000 X	0	UNLM	Neg
15453	0001	Exterior	1	C	Door Casing	Steel	Good	-0.647 S	0.000 X	0	UNLM	Neg
15454	0001	Exterior	1	C	Garage Door	Steel	Satisfactory	3.493 S	0.000 X	0	UNLM	Pos
15455	0001	Exterior	1	C	Garage Door	Steel	Satisfactory	0.073 S	0.000 X	0	UNLM	Neg
15456	0001	Exterior	1	C	Garage Door	Steel	Satisfactory	3.202 S	0.000 X	0	UNLM	Pos
15457	0001	Exterior	1	C	Garage DrFrm	Steel	Poor	4.635 S	0.000 X	0	UNLM	Pos
15458	0001	Exterior	1	C	Garage DrFrm	Steel	Poor	4.403 S	0.000 X	0	UNLM	Pos
15459	0001	Exterior	1	C	Stair Handrail	Steel	Unsatisfactory	2.484 S	0.000 X	0	UNLM	Pos
15460	0001	Exterior	1	B	Door Casing	Steel	Good	-0.085 S	0.000 X	0	UNLM	Neg
15461	0001	Exterior	1	A	Stair Stringer	Steel	Poor	0.221 S	0.000 X	0	UNLM	Neg
15462	0001	Exterior	1	A	Stair Handrail	Steel	Satisfactory	-0.337 S	0.000 X	0	UNLM	Neg
15463	0001	Area 1	1	C	Stair Stringer	Steel	Good	4.023 S	0.000 X	0	UNLM	Pos
15464	0001	Area 1	1	C	Stair Riser	Steel	Good	1.879 S	0.000 X	0	UNLM	Pos
15465	0001	Area 1	1	D	Stair Handrail	Steel	Satisfactory	2.560 S	0.000 X	0	UNLM	Pos
15466	0001	Area 1	1	D	Newel Post	Steel	Satisfactory	5.213 S	0.000 X	0	UNLM	Pos
15467	0001	Area 1	1	D	Window Sash	Steel	Poor	1.020 S	0.000 X	0	UNLM	Incl
15468	0001	Area 1	1	D	Window Sash	Steel	Poor	1.018 S	0.000 X	0	UNLM	Incl
15469	0001	Area 1	1	D	"I" Beam	Steel	Poor	0.141 S	0.000 X	0	UNLM	Neg
15470	0001	Area 1	1	D	Wall	Block	Unsatisfactory	0.493 K	0.000 X	0	UNLM	Neg
15471	0001	Area 1	1	B	Wall	Block	Unsatisfactory	0.363 K	0.000 X	0	UNLM	Neg

EA Group
7118 Industrial Park Blvd.
Mentor, Ohio

Preliminary XRF

Customer: IT Corporation
OH29765

Project Name: Lead-Based Paint Inspection

Site Name: 399 Miller Street, Youngstown,Ohio

Action Level 1.000 mg /cm2 Lab 0.000

Total Assays Reported 188

#	Site	Room Tested	#	Wall	Component	Substrate	Paint Condition	K-Shell mg/cm2	L-Shell mg/cm2	Map #	Type	Result
15472	0001	Area 1	1	A	Door Casing	Steel	Unsatisfactory	0.333 S	0.000 X	0	UNLM	Neg
15474	0001	Area 2	1	C	Lower Wall	Block	Satisfactory	0.768 K	0.000 X	0	UNLM	Neg
15475	0001	Area 2	1	D	Upper Wall	Block	Satisfactory	0.716 K	0.000 X	0	UNLM	Neg
15476	0001	Area 2	1	D	Lower Wall	Block	Unsatisfactory	0.336 K	0.000 X	0	UNLM	Neg
15477	0001	Area 2	1	D	Upper Wall	Block	Satisfactory	0.272 K	0.000 X	0	UNLM	Neg
15479	0001	Area 2	1	B	Lower Wall	Block	Unsatisfactory	0.054 K	0.000 X	0	UNLM	Neg
15480	0001	Area 2	1	B	Upper Wall	Block	Satisfactory	0.380 K	0.000 X	0	UNLM	Neg
15481	0001	Area 2	1	D	Lower Wall	Block	Unsatisfactory	0.750 K	0.000 X	0	UNLM	Neg
15482	0001	Area 2	1	A	Upper Wall	Block	Poor	0.571 K	0.000 X	0	UNLM	Neg
15483	0001	Area 2	1	A	Lower Wall	Block	Good	4.011 K	0.000 X	0	UNLM	Pos
15484	0001	Area 2	1	A	Lower Wall	Block	Good	2.165 K	0.000 X	0	UNLM	Pos
15485	0001	Area 2	1	C	Garage Door	Steel	Good	0.021 S	0.000 X	0	UNLM	Neg
15486	0001	Area 2	1	C	Garage Door	Steel	Satisfactory	1.565 S	0.000 X	0	UNLM	Pos
15487	0001	Area 2	1	C	Garage Door	Steel	Satisfactory	0.390 S	0.000 X	0	UNLM	Neg
15488	0001	Area 2	1	D	HVAC Duct	Steel	Good	0.530 S	0.000 X	0	UNLM	Neg
15489	0001	Area 2	1	B	Radiator	Steel	Satisfactory	1.367 S	0.000 X	0	UNLM	Pos
15490	0001	Area 2	1	D	Radiator	Steel	Satisfactory	0.347 S	0.000 X	0	UNLM	Neg
15491	0001	Area 2	1	B	Radiator	Steel	Satisfactory	1.292 S	0.000 X	0	UNLM	Pos
15492	0001	Area 3	1	A	Door Casing	Steel	Good	0.504 S	0.000 X	0	UNLM	Neg
15493	0001	Area 3	1	B	Wall	Block	Good	-0.632 K	0.000 X	0	UNLM	Neg

EA Group
7118 Industrial Park Blvd.
Mentor, Ohio

Preliminary XRF

Customer: IT Corporation
OH29765

Project Name: Lead-Based Paint Inspection

Site Name: 399 Miller Street, Youngstown,Ohio

Action Level 1.000 mg /cm2 Lab 0.000

Total Assays Reported 188

#	Site	Room Tested	#	Wall	Component	Substrate	Paint Condition	K-Shell mg/cm2	L-Shell mg/cm2	Map #	Type	Result
15494	0001	Area 3	1	C	Wall	Block	Good	0.270 K	0.000 X	0	UNLM	Neg
15495	0001	Area 3	1	D	Wall	Wood	Good	0.233 K	0.000 X	0	UNLM	Neg
15496	0001	Area 3	1	A	Wall	Block	Good	0.230 K	0.000 X	0	UNLM	Neg
15497	0001	Area 3	1	C	Ceiling	Drywall	Unsatisfactory	0.334 K	0.000 X	0	UNLM	Neg
15498	0001	Area 3	1	C	Window Sash	Steel	Stain Varnish	0.359 S	0.000 X	0	UNLM	Neg
15499	0001	Area 3	1	C	"I" Beam	Steel	Good	0.314 S	0.000 X	0	UNLM	Neg
15500	0001	Area 4	1	D	Window Sash	Steel	Satisfactory	0.407 S	0.000 X	0	UNLM	Neg
15501	0001	Area 4	1	C	Wall	Wood	Good	0.199 K	0.000 X	0	UNLM	Neg
15502	0001	Area 4	1	D	Wall	Block	Poor	0.492 K	0.000 X	0	UNLM	Neg
15503	0001	Area 4	1	A	Wall	Wood	Unsatisfactory	0.113 K	0.000 X	0	UNLM	Neg
15504	0001	Area 4	1	A	Wall	Drywall	Unsatisfactory	-0.119 K	0.000 X	0	UNLM	Neg
15505	0001	Area 4	1	B	Wall	Block	Good	0.378 K	0.000 X	0	UNLM	Neg
15506	0001	Area 4	1	A	Ceiling	Drywall	Unsatisfactory	0.211 K	0.000 X	0	UNLM	Neg
15507	0001	Area 4	1	B	Door-Wood	Wood	Good	-0.398 K	0.000 X	0	UNLM	Neg
15508	0001	Area 5	1	B	Wall	Block	Good	0.692 K	0.000 X	0	UNLM	Neg
15509	0001	Area 5	1	C	Wall	Block	Good	-0.602 K	0.000 X	0	UNLM	Neg
15510	0001	Area 5	1	D	Wall	Block	Good	0.390 K	0.000 X	0	UNLM	Neg
15511	0001	Area 5	1	A	Wall	Block	Good	0.746 K	0.000 X	0	UNLM	Neg
15512	0001	Area 5	1	B	HVAC Duct	Steel	Good	0.562 S	0.000 X	0	UNLM	Neg
15513	0001	Area 5	1	B	"I" Beam	Steel	Poor	0.457 S	0.000 X	0	UNLM	Neg

EA Group
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Mentor, Ohio

Preliminary XRF

Customer: IT Corporation
OH29765

Project Name: Lead-Based Paint Inspection

Site Name: 399 Miller Street, Youngstown,Ohio

Action Level 1.000 mg /cm2 Lab 0.000

Total Assays Reported 188

#	Site	Room Tested	#	Wall	Component	Substrate	Paint Condition	K-Shell mg/cm2	L-Shell mg/cm2	Map #	Type	Result
15514	0001	Area 5	1	C	Ceiling	Drywall	Good	0.242 K	0.000 X	0	UNLM	Neg
15515	0001	Area 5	1	B	Door-Metal	Steel	Unsatisfactory	-0.037 S	0.000 X	0	UNLM	Neg
15516	0001	Area 5	1	B	Door Casing	Steel	Unsatisfactory	0.505 S	0.000 X	0	UNLM	Neg
15517	0001	Area 6	1	D	Window Sash	Steel	Satisfactory	0.503 S	0.000 X	0	UNLM	Neg
15518	0001	Area 6	1	B	Ceiling	Drywall	Satisfactory	0.665 K	0.000 X	0	UNLM	Neg
15519	0001	Area 6	1	A	Wall	Block	Unsatisfactory	0.579 K	0.000 X	0	UNLM	Neg
15520	0001	Area 6	1	B	Wall	Block	Unsatisfactory	0.361 K	0.000 X	0	UNLM	Neg
15521	0001	Area 6	1	C	Wall	Block	Unsatisfactory	0.381 K	0.000 X	0	UNLM	Neg
15522	0001	Area 6	1	D	Wall	Block	Satisfactory	0.023 K	0.000 X	0	UNLM	Neg
15523	0001	Area 6	1	B	Door-Wood	Wood	Good	0.339 K	0.000 X	0	UNLM	Neg
15524	0001	Area 6	1	B	Door Casing	Steel	Good	-0.096 S	0.000 X	0	UNLM	Neg
15526	0001	Area 7	1	C	Wall	Block	Satisfactory	0.671 K	0.000 X	0	UNLM	Neg
15527	0001	Area 7	1	D	Wall	Block	Unsatisfactory	0.548 K	0.000 X	0	UNLM	Neg
15528	0001	Area 7	1	A	Wall	Drywall	Satisfactory	-0.146 K	0.000 X	0	UNLM	Neg
15529	0001	Area 7	1	A	Door Casing	Wood	Good	0.466 K	0.000 X	0	UNLM	Neg
15530	0001	Area 7	1	B	Wall	Block	Unsatisfactory	0.104 K	0.000 X	0	UNLM	Neg
15531	0001	Area 7	1	A	Ceiling	Drywall	Unsatisfactory	0.346 K	0.000 X	0	UNLM	Neg
15532	0001	Area 7	1	B	"I" Beam	Steel	Unsatisfactory	-0.751 S	0.000 X	0	UNLM	Neg
15533	0001	Area 7	1	D	Window Sash	Steel	Satisfactory	0.000 S	0.000 X	0	UNLM	Neg
15534	0001	Area 8	1	A	Wall	Concrete	Good	0.664 K	0.000 X	0	UNLM	Neg

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Preli[illegible]inary XRF

Customer: IT Corporation
OH29765

Project Name: Lead-Based Paint Inspection

Site Name: 399 Miller Street, Youngstown,Ohio

Action Level 1.000 mg /cm2 Lab 0.000

Total Assays Reported 188

#	Site	Room Tested	#	Wall	Component	Substrate	Paint Condition	K-Shell mg/cm2	L-Shell mg/cm2	Map #	Type	Result
15535	0001	Area 8	1	A	Wall	Concrete	Satisfactory	0.183 K	0.000 X	0	UNLM	Neg
15536	0001	Area 8	1	C	Ceiling	Concrete	Good	0.564 K	0.000 X	0	UNLM	Neg
15537	0001	Area 8	1	D	Wall	Concrete	Good	0.648 K	0.000 X	0	UNLM	Neg
15538	0001	Area 9	1	D	Wall	Concrete	Good	0.614 K	0.000 X	0	UNLM	Neg
15539	0001	Area 9	1	B	Ceiling	Concrete	Good	0.050 K	0.000 X	0	UNLM	Neg
15540	0001	Area 9	1	B	Wall	Concrete	Good	0.570 K	0.000 X	0	UNLM	Neg
15541	0001	Area 10	1	A	Wall	Concrete	Good	0.218 K	0.000 X	0	UNLM	Neg
15542	0001	Area 10	1	C	Wall	Concrete	Good	-0.604 K	0.000 X	0	UNLM	Neg
15543	0001	Area 10	1	C	Ceiling	Concrete	Good	0.432 K	0.000 X	0	UNLM	Neg
15544	0001	Area 11	1	D	Wall	Concrete	Unsatisfactory	0.106 K	0.000 X	0	UNLM	Neg
15545	0001	Area 11	1	B	Wall	Block	Unsatisfactory	-0.144 K	0.000 X	0	UNLM	Neg
15546	0001	Area 11	1	A	Stair Stringer	Steel	Good	2.905 S	0.000 X	0	UNLM	Pos
15547	0001	Area 11	1	A	Stair Handrail	Steel	Satisfactory	1.444 S	0.000 X	0	UNLM	Pos
15548	0001	Area 11	1	A	Newel Post	Steel	Satisfactory	1.596 S	0.000 X	0	UNLM	Pos
15549	0001	Area 12	1	A	Wall	Concrete	Unsatisfactory	0.682 K	0.000 X	0	UNLM	Neg
15550	0001	Area 12	1	B	Wall	Concrete	Unsatisfactory	0.721 K	0.000 X	0	UNLM	Neg
15551	0001	Area 12	1	B	Ceiling	Concrete	Unsatisfactory	0.730 K	0.000 X	0	UNLM	Neg
15552	0001	Area 13	1	B	Lower Wall	Block	Good	-0.256 K	0.000 X	0	UNLM	Neg
15553	0001	Area 13	1	B	Upper Wall	Block	Good	0.122 K	0.000 X	0	UNLM	Neg
15554	0001	Area 13	1	A	Lower Wall	Concrete	Unsatisfactory	0.663 K	0.000 X	0	UNLM	Neg

EA Group
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Preliminary XRF

Customer: IT Corporation
OH29765

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Action Level 1.000 mg /cm2 Lab 0.000

Total Assays Reported 188

#	Site	Room Tested	#	Wall	Component	Substrate	Paint Condition	K-Shell mg/cm2	L-Shell mg/cm2	Map #	Type	Result
15555	0001	Area 13	1	A	Upper Wall	Concrete	Good	0.544 K	0.000 X	0	UNLM	Neg
15556	0001	Area 13	1	D	Lower Wall	Block	Unsatisfactory	0.562 K	0.000 X	0	UNLM	Neg
15557	0001	Area 13	1	D	Upper Wall	Block	Good	0.657 K	0.000 X	0	UNLM	Neg
15558	0001	Area 13	1	D	Door-Wood	Wood	Satisfactory	0.380 K	0.000 X	0	UNLM	Neg
15559	0001	Area 13	1	D	Door-Metal	Steel	Satisfactory	-0.179 S	0.000 X	0	UNLM	Neg
15560	0001	Area 13	1	D	Door Casing	Steel	Satisfactory	-0.276 S	0.000 X	0	UNLM	Neg
15561	0001	Area 14	1	D	Door Casing	Steel	Satisfactory	0.253 S	0.000 X	0	UNLM	Neg
15562	0001	Area 14	1	D	Door-Metal	Steel	Satisfactory	0.394 S	0.000 X	0	UNLM	Neg
15563	0001	Area 14	1	B	Window Sash	Steel	Satisfactory	0.791 S	0.000 X	0	UNLM	Neg
15564	0001	Area 14	1	B	Window Sash	Steel	Satisfactory	0.020 S	0.000 X	0	UNLM	Neg
15565	0001	Area 14	1	B	Wall	Block	Satisfactory	0.513 K	0.000 X	0	UNLM	Neg
15566	0001	Area 14	1	C	Wall	Drywall	Satisfactory	-0.074 K	0.000 X	0	UNLM	Neg
15567	0001	Area 14	1	D	Wall	Block	Satisfactory	0.612 K	0.000 X	0	UNLM	Neg
15568	0001	Area 14	1	A	Ceiling	Drywall	Unsatisfactory	0.042 K	0.000 X	0	UNLM	Neg
15569	0001	Area 15	1	B	Wall	Block	Satisfactory	0.565 K	0.000 X	0	UNLM	Neg
15570	0001	Area 15	1	C	Wall	Drywall	Satisfactory	-0.577 K	0.000 X	0	UNLM	Neg
15571	0001	Area 15	1	A	Wall	Drywall	Satisfactory	0.139 K	0.000 X	0	UNLM	Neg
15572	0001	Area 15	1	B	Ceiling	Drywall	Good	0.163 K	0.000 X	0	UNLM	Neg
15573	0001	Area 15	1	D	Door-Metal	Steel	Satisfactory	-0.310 S	0.000 X	0	UNLM	Neg
15574	0001	Area 15	1	D	Door Casing	Steel	Satisfactory	0.147 S	0.000 X	0	UNLM	Neg

EA Group
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Preliminary XRF

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Site Name: 399 Miller Street, Youngstown,Ohio

Action Level 1.000 mg /cm2 Lab 0.000

Total Assays Reported 188

#	Site	Room Tested	#	Wall	Component	Substrate	Paint Condition	K-Shell mg/cm2	L-Shell mg/cm2	Map #	Type	Result
15575	0001	Area 15	1	B	Window Sash	Steel	Satisfactory	0.443 S	0.000 X	0	UNLM	Neg
15576	0001	Area 16	1	D	Door-Metal	Steel	Satisfactory	-0.041 S	0.000 X	0	UNLM	Neg
15577	0001	Area 16	1	D	Door Casing	Steel	Good	0.400 S	0.000 X	0	UNLM	Neg
15578	0001	Area 16	1	C	Wall	Drywall	Satisfactory	0.327 K	0.000 X	0	UNLM	Neg
15579	0001	Area 16	1	C	Ceiling	Drywall	Good	-0.420 K	0.000 X	0	UNLM	Neg
15580	0001	Area 16	1	B	Wall	Block	Good	0.471 K	0.000 X	0	UNLM	Neg
15581	0001	Area 16	1	A	Wall	Drywall	Satisfactory	0.040 K	0.000 X	0	UNLM	Neg
15582	0001	Area 16	1	D	Wall	Drywall	Good	-0.011 K	0.000 X	0	UNLM	Neg
15583	0001	Area 17	1	A	Wall	Block	Satisfactory	0.541 K	0.000 X	0	UNLM	Neg
15585	0001	Area 17	1	A	Wall	Drywall	Satisfactory	0.498 K	0.000 X	0	UNLM	Neg
15586	0001	Area 17	1	C	Wall	Block	Satisfactory	0.659 K	0.000 X	0	UNLM	Neg
15587	0001	Area 17	1	B	Window Sash	Steel	Unsatisfactory	0.400 S	0.000 X	0	UNLM	Neg
15588	0001	Area 17	1	A	Ceiling	Drywall	Good	0.172 K	0.000 X	0	UNLM	Neg
15589	0001	Area 18	1	A	Wall	Concrete	Satisfactory	-0.110 K	0.000 X	0	UNLM	Neg
15590	0001	Area 18	1	A	Ceiling	Concrete	Unsatisfactory	0.321 K	0.000 X	0	UNLM	Neg
15591	0001	Area 18	1	C	Wall	Block	Satisfactory	0.468 K	0.000 X	0	UNLM	Neg
15592	0001	Area 18	1	D	Door-Wood	Wood	Satisfactory	0.011 K	0.000 X	0	UNLM	Neg
15593	0001	Area 18	1	D	Door Casing	Steel	Poor	0.235 S	0.000 X	0	UNLM	Neg
15594	0001	Area 19	1	C	Window Sash	Steel	Satisfactory	1.580 S	0.000 X	0	UNLM	Pos
15595	0001	Area 19	1	C	Window Sash	Steel	Satisfactory	1.559 S	0.000 X	0	UNLM	Pos

EA Group
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Preliminary XRF

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Total Assays Reported 188

#	Site	Room Tested	#	Wall	Component	Substrate	Paint Condition	K-Shell mg/cm2	L-Shell mg/cm2	Map #	Type	Result
15596	0001	Area 19	1	B	Wall	Block	Satisfactory	0.601 K	0.000 X	0	UNLM	Neg
15597	0001	Area 19	1	D	Wall	Concrete	Unsatisfactory	0.541 K	0.000 X	0	UNLM	Neg
15598	0001	Area 19	1	A	Wall	Drywall	Satisfactory	0.357 K	0.000 X	0	UNLM	Neg
15599	0001	Area 19	1	C	Ceiling	Concrete	Unsatisfactory	0.398 K	0.000 X	0	UNLM	Neg
15600	0001	Area 20	1	B	Ceiling	Concrete	Satisfactory	0.465 K	0.000 X	0	UNLM	Neg
15601	0001	Area 20	1	A	Door Casing	Steel	Unsatisfactory	0.181 S	0.000 X	0	UNLM	Neg
15602	0001	Area 20	1	A	Door-Wood	Wood	Satisfactory	-0.247 K	0.000 X	0	UNLM	Neg
15603	0001	Area 20	1	D	Window Sash	Steel	Poor	0.148 S	0.000 X	0	UNLM	Neg
15604	0001	Area 20	1	D	Window Sash	Steel	Poor	-0.428 S	0.000 X	0	UNLM	Neg
15605	0001	Area 21	1	D	Window Sash	Steel	Poor	0.483 S	0.000 X	0	UNLM	Neg
15606	0001	Area 21	1	D	Wall	Concrete	Unsatisfactory	-0.046 K	0.000 X	0	UNLM	Neg
15607	0001	Area 21	1	A	Wall	Concrete	Unsatisfactory	0.310 K	0.000 X	0	UNLM	Neg
15608	0001	Area 21	1	C	Wall	Concrete	Unsatisfactory	0.786 K	0.000 X	0	UNLM	Neg
15609	0001	Area 21	1	C	Wall	Concrete	Unsatisfactory	0.677 K	0.000 X	0	UNLM	Neg
15611	0001	Area 21	1	B	Door-Wood	Wood	Poor	-0.044 K	0.000 X	0	UNLM	Neg
15612	0001	Area 21	1	B	Door Casing	Steel	Poor	0.422 S	0.000 X	0	UNLM	Neg
15613	0001	Area 21	1	B	Ceiling	Concrete	Unsatisfactory	-0.014 K	0.000 X	0	UNLM	Neg
15614	0001	Area 21	1	B	Lower Wall	Concrete	Unsatisfactory	-0.414 K	0.000 X	0	UNLM	Neg
15615	0001	Area 21	1	D	Wall	Concrete	Unsatisfactory	0.572 K	0.000 X	0	UNLM	Neg
15616	0001	Area 23	1	C	Lower Wall	Block	Good	0.531 K	0.000 X	0	UNLM	Neg

EA Group
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Preliminary XRF

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Total Assays Reported 188

#	Site	Room Tested	#	Wall	Component	Substrate	Paint Condition	K-Shell mg/cm2	L-Shell mg/cm2	Map #	Type	Result
15617	0001	Area 23	1	C	Upper Wall	Block	Good	0.536 K	0.000 X	0	UNLM	Neg
15618	0001	Area 23	1	A	Lower Wall	Block	Good	0.825 K	0.000 X	0	UNLM	Neg
15619	0001	Area 23	1	A	Upper Wall	Block	Good	0.385 K	0.000 X	0	UNLM	Neg
15620	0001	Area 23	1	B	Door-Wood	Wood	Good	0.591 K	0.000 X	0	UNLM	Neg
15621	0001	Area 2	1	A	Lower Wall	Block	Good	3.737 K	0.000 X	0	UNLM	Pos
15622	0001	Area 24	1	B	Wall	Block	Good	-0.217 K	0.000 X	0	UNLM	Neg
15623	0001	Area 24	1	C	Wall	Drywall	Unsatisfactory	0.403 K	0.000 X	0	UNLM	Neg
15624	0001	Area 24	1	C	Door-Wood	Wood	Good	0.501 K	0.000 X	0	UNLM	Neg
15625	0001	Area 24	1	C	Door Casing	Wood	Unsatisfactory	-0.097 K	0.000 X	0	UNLM	Neg
15626	0001	Area 24	1	A	Wall	Block	Satisfactory	-0.911 K	0.000 X	0	UNLM	Neg
15627	0001	Area 24	1	A	Ceiling	Drywall	Good	0.231 K	0.000 X	0	UNLM	Neg
15628	0001	Area 24	1	B	"I" Beam	Steel	Good	0.240 S	0.000 X	0	UNLM	Neg
15629	0001	Area 24	1	A	Window Sash	Steel	Unsatisfactory	0.094 S	0.000 X	0	UNLM	Neg
15630	0001	Area 24	1	A	Window Guard	Steel	Unsatisfactory	2.480 S	0.000 X	0	UNLM	Pos
15631	0001	Area 24	1	A	Window Guard	Steel	Good	1.742 S	0.000 X	0	UNLM	Pos
15632	0001	Area 24	1	A	Window Guard	Steel	Good	1.868 S	0.000 X	0	UNLM	Pos
15633	0001	Area 24	1	A	Door-Metal	Steel	Good	-0.322 S	0.000 X	0	UNLM	Neg
15634	0001	Area 24	1	D	Wall	Block	Satisfactory	0.484 K	0.000 X	0	UNLM	Neg
15635	0001	Area 25	1	A	Lower Wall	Block	Good	0.223 K	0.000 X	0	UNLM	Neg
15636	0001	Area 25	1	A	Upper Wall	Block	Satisfactory	0.376 K	0.000 X	0	UNLM	Neg

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#	Site	Room Tested	#	Wall	Component	Substrate	Paint Condition	K-Shell mg/cm2	L-Shell mg/cm2	Map #	Type	Result
15637	0001	Area 25	1	C	Lower Wall	Block	Good	0.067 K	0.000 X	0	UNLM	Neg
15638	0001	Area 25	1	C	Upper Wall	Block	Good	0.812 K	0.000 X	0	UNLM	Neg
15639	0001	Area 25	1	D	Lower Wall	Drywall	Good	0.268 K	0.000 X	0	UNLM	Neg
15640	0001	Area 25	1	D	Upper Wall	Drywall	Good	0.333 K	0.000 X	0	UNLM	Neg
15641	0001	Area 27	1	A	Wall	Block	Good	0.555 K	0.000 X	0	UNLM	Neg
15642	0001	Area 27	1	B	Wall	Drywall	Satisfactory	0.164 K	0.000 X	0	UNLM	Neg
15643	0001	Area 27	1	A	Door-Wood	Wood	Good	0.420 K	0.000 X	0	UNLM	Neg
15644	0001	Area 27	1	D	Wall	Block	Unsatisfactory	0.510 K	0.000 X	0	UNLM	Neg

EA GROUP
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APPENDIX C

Daily Calibration Report(s)

EA Group
7118 Industrial Park Blvd.
Mentor, Ohio

Daily Calibration

Project	Site	Date	Time	K-Shell mg/cm2	K-Avg. mg/cm2	L-Shell mg/cm2	L-Avg. mg/cm2	Scanner #	Instr #	Oper
Starting Calibration		09/27/190	11:04A	1.327	1.269	0.000	0.000	M41395	395	1127
Starting Calibration		09/27/190	11:05A	1.190		0.000		M41395	395	1127
Starting Calibration		09/27/190	11:06A	1.282		0.000		M41395	395	1127
Starting Calibration		09/27/190	11:14A	1.207		0.000		M41395	395	1127
Starting Calibration		09/27/190	11:15A	1.266		0.000		M41395	395	1127
Starting Calibration		09/27/190	11:16A	1.296		0.000		M41395	395	1127
Starting Calibration		09/27/190	11:17A	1.315		0.000		M41395	395	1127
0001	0001	09/27/190	03:08P	1.407	1.407	0.000		M41395	395	1127
0001	0001	09/27/190	03:09P	1.313	1.313	0.000		M41395	395	1127
0001	0001	09/27/190	03:11P	1.301	1.301	0.000		M41395	395	1127
0001	0001	09/27/190	03:12P	1.124	1.124	0.000		M41395	395	1127
0001	0001	09/27/190	03:12P	1.277	1.277	0.000		M41395	395	1127
Starting Calibration		09/27/190	11:04A	1.327	1.269	0.000		M41395	395	1127
Starting Calibration		09/27/190	11:05A	1.190		0.000		M41395	395	1127
Starting Calibration		09/27/190	11:06A	1.282		0.000		M41395	395	1127
Starting Calibration		09/27/190	11:14A	1.207		0.000		M41395	395	1127
Starting Calibration		09/27/190	11:15A	1.266		0.000		M41395	395	1127
Starting Calibration		09/27/190	11:16A	1.296		0.000		M41395	395	1127
Starting Calibration		09/27/190	11:17A	1.315		0.000		M41395	395	1127
0001	0001	09/27/190	03:08P	1.407	1.407	0.000		M41395	395	1127
0001	0001	09/27/190	03:09P	1.313	1.313	0.000		M41395	395	1127

EA Group
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Mentor, Ohio

Daily Calibration

Project	Site	Date	Time	K-Shell mg/cm2	K-Avg. mg/cm2	L-Shell mg/cm2	L-Avg. mg/cm2	Scanner #	Instr #	Oper
0001	0001	09/27/190	03:11P	1.301	1.301	0.000		M41395	395	1127
0001	0001	09/27/190	03:12P	1.124	1.124	0.000		M41395	395	1127
0001	0001	09/27/190	03:12P	1.277	1.277	0.000		M41395	395	1127

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APPENDIX D

Laboratory Analytical Report(s)

EA GROUP
Laboratories

Laboratory Analytical Report

IT Corporation
11499 Chester Rd.
Cincinnati, OH 45246

Attention:
Bill Scoville

Project Identification
Pb Risk Assessment

OH29765
Purchase Order:

EA Group
Order Number
0009-00332

Donald R. Richner, CIH
Laboratory Manager

October 3, 2000

EA GROUP
Laboratories

Project Summary

The following analytical report contains the results as requested for samples submitted to EA Group. The results included in this report have been reviewed for compliance with the analytical methods indicated in this report. All data have been found to be compliant with accepted laboratory protocol. Exceptions, if any, are noted below. Analytes appearing in bold type were analyzed at a subcontract facility.

Data Interpretation

For assistance with report interpretation or questions regarding regulatory limits, please contact Client Services at 440-951-3514 or customerservice@eagroup-ohio.com.

Sample Summary

Sample Receive Date: 9/28/00

EAG Sample Identification	Client Sample Identification	EAG Sample Identification	Client Sample Identification
000900332 - 001	OH29765-01	000900332 - 002	OH29765-02
000900332 - 003	OH29765-03	000900332 - 004	OH29765-04
000900332 - 005	OH29765-05	000900332 - 006	OH29765-06
000900332 - 007	OH29765-07	000900332 - 008	OH29765-08
000900332 - 009	OH29765-09	000900332 - 010	OH29765-10
000900332 - 011	OH29765-11	000900332 - 012	OH29765-12
000900332 - 013	OH29765-13	000900332 - 014	OH29765-14
000900332 - 015	OH29765-15	000900332 - 016	OH29765-16
000900332 - 017	OH29765-17	000900332 - 018	OH29765-18
000900332 - 019	OH29765-19	000900332 - 020	OH29765-20
000900332 - 021	OH29765-21	000900332 - 022	OH29765-22

Quality Control Narrative

 Unless noted, soil, sludge, and sediment results are reported on dry weight basis. The "Sample Reporting Limit" is based on the method used for analysis and does not refer to any regulatory limit.

EA GROUP
Laboratories

EAG ID: 0009-00332-1 Client ID: OH29765-01 Sampled: 9/27/2000 Received: 9/28/00

Parameter	Result	Sample Reporting Limit	Units	Prep Date	Analysis Date	Analyst
Lead, Wipe: SW846-6010A	<2.5	2.5	ug/wipe	10/03/2000	10/03/2000	REF

EAG ID: 0009-00332-2 Client ID: OH29765-02 Sampled: 9/27/2000 Received: 9/28/00

Parameter	Result	Sample Reporting Limit	Units	Prep Date	Analysis Date	Analyst
Lead, Wipe: SW846-6010A	<2.5	2.5	ug/wipe	10/03/2000	10/03/2000	REF

EAG ID: 0009-00332-3 Client ID: OH29765-03 Sampled: 9/27/2000 Received: 9/28/00

Parameter	Result	Sample Reporting Limit	Units	Prep Date	Analysis Date	Analyst
Lead, Wipe: SW846-6010A	340	2.5	ug/ft2	10/03/2000	10/03/2000	REF

EAG ID: 0009-00332-4 Client ID: OH29765-04 Sampled: 9/27/2000 Received: 9/28/00

Parameter	Result	Sample Reporting Limit	Units	Prep Date	Analysis Date	Analyst
Lead, Wipe: SW846-6010A	690	2.5	ug/ft2	10/03/2000	10/03/2000	REF

EAG ID: 0009-00332-5 Client ID: OH29765-05 Sampled: 9/27/2000 Received: 9/28/00

Parameter	Result	Sample Reporting Limit	Units	Prep Date	Analysis Date	Analyst
Lead, Wipe: SW846-6010A	496	2.5	ug/ft2	10/03/2000	10/03/2000	REF

EAG ID: 0009-00332-6 Client ID: OH29765-06 Sampled: 9/27/2000 Received: 9/28/00

Parameter	Result	Sample Reporting Limit	Units	Prep Date	Analysis Date	Analyst
Lead, Wipe: SW846-6010A	76.5	2.5	ug/ft2	10/03/2000	10/03/2000	REF

EAG ID: 0009-00332-7 Client ID: OH29765-07 Sampled: 9/27/2000 Received: 9/28/00

Parameter	Result	Sample Reporting Limit	Units	Prep Date	Analysis Date	Analyst
Lead, Wipe: SW846-6010A	289	2.5	ug/ft2	10/03/2000	10/03/2000	REF

EAGROUP
Laboratories

EAG ID: 0009-00332-8 Client ID: OH29765-08 Sampled: 9/27/2000 Received: 9/28/00

Parameter	Result	Sample Reporting Limit	Units	Prep Date	Analysis Date	Analyst
Lead, Wipe: SW846-6010A	293	2.5	ug/ft2	10/03/2000	10/03/2000	REF

EAG ID: 0009-00332-9 Client ID: OH29765-09 Sampled: 9/27/2000 Received: 9/28/00

Parameter	Result	Sample Reporting Limit	Units	Prep Date	Analysis Date	Analyst
Lead, Wipe: SW846-6010A	376	2.5	ug/ft2	10/03/2000	10/03/2000	REF

EAG ID: 0009-00332-10 Client ID: OH29765-10 Sampled: 9/27/2000 Received: 9/28/00

Parameter	Result	Sample Reporting Limit	Units	Prep Date	Analysis Date	Analyst
Lead, Wipe: SW846-6010A	40.5	2.5	ug/ft2	10/03/2000	10/03/2000	REF

EAG ID: 0009-00332-11 Client ID: OH29765-11 Sampled: 9/27/2000 Received: 9/28/00

Parameter	Result	Sample Reporting Limit	Units	Prep Date	Analysis Date	Analyst
Lead, Wipe: SW846-6010A	281	2.5	ug/ft2	10/03/2000	10/03/2000	REF

EAG ID: 0009-00332-12 Client ID: OH29765-12 Sampled: 9/27/2000 Received: 9/28/00

Parameter	Result	Sample Reporting Limit	Units	Prep Date	Analysis Date	Analyst
Lead, Wipe: SW846-6010A	40.0	2.5	ug/ft2	10/03/2000	10/03/2000	REF

EAG ID: 0009-00332-13 Client ID: OH29765-13 Sampled: 9/27/2000 Received: 9/28/00

Parameter	Result	Sample Reporting Limit	Units	Prep Date	Analysis Date	Analyst
Lead, Wipe: SW846-6010A	444	2.5	ug/ft2	10/03/2000	10/03/2000	REF

EAG ID: 0009-00332-14 Client ID: OH29765-14 Sampled: 9/27/2000 Received: 9/28/00

Parameter	Result	Sample Reporting Limit	Units	Prep Date	Analysis Date	Analyst
Lead, Wipe: SW846-6010A	200	2.5	ug/ft2	10/03/2000	10/03/2000	REF

EA GROUP
Laboratories

EAG ID: 0009-00332-15 Client ID: OH29765-15 Sampled: 9/27/2000 Received: 9/28/00

Parameter	Result	Sample Reporting Limit	Units	Prep Date	Analysis Date	Analyst
Lead, Wipe: SW846-6010A	281	2.5	ug/ft2	10/03/2000	10/03/2000	REF

EAG ID: 0009-00332-16 Client ID: OH29765-16 Sampled: 9/27/2000 Received: 9/28/00

Parameter	Result	Sample Reporting Limit	Units	Prep Date	Analysis Date	Analyst
Lead, Wipe: SW846-6010A	10.5	2.5	ug/ft2	10/03/2000	10/03/2000	REF

EAG ID: 0009-00332-17 Client ID: OH29765-17 Sampled: 9/27/2000 Received: 9/28/00

Parameter	Result	Sample Reporting Limit	Units	Prep Date	Analysis Date	Analyst
Lead, Wipe: SW846-6010A	119	2.5	ug/ft2	10/03/2000	10/03/2000	REF

EAG ID: 0009-00332-18 Client ID: OH29765-18 Sampled: 9/27/2000 Received: 9/28/00

Parameter	Result	Sample Reporting Limit	Units	Prep Date	Analysis Date	Analyst
Lead, Wipe: SW846-6010A	35.5	2.5	ug/ft2	10/03/2000	10/03/2000	REF

EAG ID: 0009-00332-19 Client ID: OH29765-19 Sampled: 9/27/2000 Received: 9/28/00

Parameter	Result	Sample Reporting Limit	Units	Prep Date	Analysis Date	Analyst
Lead, Wipe: SW846-6010A	35.0	2.5	ug/ft2	10/03/2000	10/03/2000	REF

EAG ID: 0009-00332-20 Client ID: OH29765-20 Sampled: 9/27/2000 Received: 9/28/00

Parameter	Result	Sample Reporting Limit	Units	Prep Date	Analysis Date	Analyst
Lead, Wipe: SW846-6010A	90.5	2.5	ug/ft2	10/03/2000	10/03/2000	REF

EAG ID: 0009-00332-21 Client ID: OH29765-21 Sampled: 9/27/2000 Received: 9/28/00

Parameter	Result	Sample Reporting Limit	Units	Prep Date	Analysis Date	Analyst
Lead, Wipe: SW846-6010A	270	2.5	ug/ft2	10/03/2000	10/03/2000	REF

EA GROUP
Laboratories

EAG ID: 0009-00332-22 Client ID: OH29765-22 Sampled: 9/27/2000 Received: 9/28/00

Parameter	Result	Sample Reporting Limit	Units	Prep Date	Analysis Date	Analyst
Lead, Wipe: SW846-6010A	59.5	2.5	ug/ft2	10/03/2000	10/03/2000	REF

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FIELD REQUEST FOR LABORATORY ANALYSIS

Company Name: IT CORP.

Address: 11499 CHESTER Rd.
CINCINNATI, OH 45246

Attention: Bill Scoville

Results Needed By: 10-4-00

Normal: X **RUSH:** _____

Priority: _____ (confirm w/ lab)

Date: _____ Time: _____

Telephone: 513-782-4700 Fax No: 513-782-4807

Sampled by: E.L.

Project Name: Pb RISK ASSESS. Project Number OH 29765

Rush Authorized by: _____ Project Category: ENV

Special Billing/Reporting: ~~HUD Protocol~~ COE - Please send Samples ~~[illegible]~~ to Test America, Nashville, TN.

Internal Contact: EL.

CHAIN OF CUSTODY

Relinquished by		Received by	
Name	Date/Time	Name	Date/Time
E. Lunza	9-27-00 1800	[signature]	9-27-00/1800
[signature]	9-28-00/0845	[signature]	9/28/00 8:45A

EA GROUP FIELD OPERATIONS - REQUEST FOR LABORATORY ANALYSIS

Page: 1 of 2

Sample No.	Split ID	Date/Time Collected	Matrix/ Media	Area/Vol. (units)	1	2	3	4	5	6	7	8	9	Comments
OH 29765-1		9.27.09	SW	BLANK	✓									
OH 2				1 SQ/FT										
OH 3														
OH 4														
OH 5														
OH 6														
OH 7														
OH 8														
OH 9														
OH 10														
OH 11														
OH 12														
OH 13														
OH 14														
OH 15														
OH 16														
OH 17														
OH 18														
OH 19														
OH 20														

Media:

A1	Air (25 mm)	A6	Air (impinger)	SL	Sludge/Slurry
A2	Air (37 mm)	B	Bulk	SW	Swab
A3	Air (sorbent)	R/CC	Char. Canister	O	Oil
A4	Air (badge)	R/AT	Alpha track	W	Water/Liquid
A5	Air (bag)	S	Soil	DW	Drinking Water

Sample condition upon receipt:
Intact _____
Not Intact _____

Analytes:

1 LEAD
2
3
4
5
6
7
8
9

EA GROUP FIELD OPERATIONS - REQUEST FOR LABORATORY ANALYSIS

Sample No.	Split ID	Date/Time Collected	Matrix/ Media	Area/Vol. (units)	1	2	3	4	5	6	7	8	9	Comments
OH 29765-21		9-27-00	Soil	1 SQFT	✓									
OH 22		"	"	"	✓									
OH														
OH														
OH														
OH														
OH														
OH														
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OH														
OH														

Media:

A1	Air (25 mm)	A6	Air (impinger)	SL	Sludge/Slurry
A2	Air (37 mm)	B	Bulk	SW	Swab
A3	Air (sorbent)	R/CC	Char. Canister	O	Oil
A4	Air (badge)	R/AT	Alpha track	W	Water/Liquid
A5	Air (bag)	S	Soil	DW	Drinking Water

Sample condition upon receipt:
Intact _____
Not Intact _____

Analytes:

1 LEAD
2 _____
3 _____
4 _____
5 _____
6 _____
7 _____
8 _____
9 _____